

RULES AND REGULATIONS

Title 25—ENVIRONMENTAL PROTECTION

ENVIRONMENTAL QUALITY BOARD [25 PA. CODE CHS. 121, 129 AND 145] Clean Air Interstate Rule

The Environmental Quality Board (Board) by this order amends Chapters 121, 129 and 145 (relating to general provisions; standards for sources; and interstate pollution transport reduction) to read as set forth in Annex A.

The amendments adopt and incorporate by reference, with some exceptions, the Clean Air Interstate Rule (CAIR) nitrogen oxides (NOx) Annual Trading Program and CAIR NOx Ozone Season Trading Program model rules, as a means of mitigating the interstate transport of fine particulates (PM_{2.5}) and NOx. The amendments also adopt and incorporate by reference the CAIR Sulfur Dioxide (SO₂) Trading Program model rules as a means of mitigating the interstate transport of PM_{2.5} and SO₂. The amendments establish general provisions and the applicability, allowance and supplemental monitoring, record-keeping and reporting provisions and make other related amendments. The CAIR NOx Trading Programs in the amendments supersede the Commonwealth's existing NOx Budget Trading Program.

This order was adopted by the Board at its meeting of December 18, 2007.

A. *Effective Date*

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

B. *Contact Persons*

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C. *Statutory Authority*

The final-form rulemaking is being made under the authority of section 5 of the Air Pollution Control Act (APCA) (35 P. S. § 4005). Section 5(a)(1) of the APCA grants the Board the authority to adopt rules and regulations for the prevention, control, reduction and abatement of air pollution in this Commonwealth.

D. *Background of the Amendments*

The purpose of this final-form rulemaking is to establish a program to limit the emission of NOx and SO₂ from electric generating facilities of 25 megawatts or greater. This final-form rulemaking also extends existing NOx emission permit limits for certain boilers, stationary combustion turbines and stationary internal combustion engines; retains the non-EGU NOx Budget Trading Pro-

gram budget to serve as a Statewide ozone season emissions cap for new and existing non-EGUs and for CAIR-exempt EGUs that were subject to the NOx Budget Trading Program; provides for the allocation of CAIR NOx allowances to certain units that did not receive SO₂ allowances under the Federal Acid Rain Program; and provides for the allocation of CAIR NOx annual allowances and CAIR NOx Ozone Season allowances to certain renewable energy and energy efficiency units.

The Clean Air Act (CAA) (42 U.S.C.A. §§ 7401—7642) contains a number of requirements to address PM_{2.5} and 8-hour ozone National Ambient Air Quality Standards (NAAQS), including requirements that states address interstate transport that contributes to nonattainment. The United States Environmental Protection Agency (EPA) concluded that emissions in certain upwind states result in amounts of transported PM_{2.5} and ozone and emission precursors for both (namely, NOx as a precursor for PM_{2.5} and ozone, and SO₂ as a precursor for PM_{2.5}) that contribute significantly to nonattainment in downwind states. The EPA determined that this Commonwealth is both an upwind and downwind state.

Section 110(a)(1) of the CAA (42 U.S.C.A. § 7410(a)(1)) requires that states submit State Implementation Plans (SIP) to meet the applicable requirements of section 110(a)(2) of the CAA within 3 years after the promulgation of a new or revised NAAQS or within a shorter period as the EPA may provide. Under section 110(a)(1) of the CAA, states are required to submit SIPs that satisfy the requirements of section 110(a)(2)(D)(i) of the CAA, regarding interstate transport of pollution. In 1997, the EPA adopted a NAAQS for PM_{2.5} at 62 FR 38652 (July 18, 1997) and 8-hour ozone at 62 FR 38855 (July 18, 1997). On April 25, 2005, the EPA made National findings that states failed to submit the required SIPs to address interstate transport with respect to the PM_{2.5} and 8-hour ozone NAAQS. See 70 FR 21147 (April 25, 2005). Publication of the EPA's findings started a 2-year time clock under section 110(c)(1) of the CAA in which the EPA would promulgate a Federal Implementation Plan (FIP) for a state that failed to submit a SIP approved by the EPA that satisfies the interstate transport requirements in section 110(a)(2)(D)(i) of the CAA within the 2 years.

On May 12, 2005, the EPA published the final CAIR rule in which the EPA issued findings that 28 states and the District of Columbia contribute significantly to nonattainment of the PM_{2.5} or 8-hour ozone NAAQS, or both, in downwind states. See 70 FR 25162 (May 12, 2005), as amended at 71 FR 25328 (April 28, 2006). The EPA required these states and the District of Columbia to submit revised SIPs that include control measures to reduce emissions of SO₂ or NOx, or both, that significantly contribute to nonattainment of the PM_{2.5} and 8-hour ozone NAAQS in downwind states. A state subject to the CAIR may independently determine which emissions sources to subject to controls and which control measures to adopt. The EPA included Statewide emission reduction levels in the final rulemaking, as well as model rules for multistate cap and trade programs for annual SO₂ and NOx emissions for PM_{2.5} and for seasonal NOx emissions for ozone. In the rulemaking, the EPA also revised the Acid Rain Program regulations, particularly the regulatory provisions governing the SO₂ cap and trade program, to streamline that program and facilitate its interaction with the CAIR model SO₂ cap and trade program. The EPA also specified that the NOx SIP Call

cap and trade program, known as the NOx Budget Trading Program, will be replaced by the CAIR NOx Ozone Season Trading Program.

By way of background, the NOx SIP Call was promulgated in 1998 as the EPA's principal effort to reduce interstate transport of precursors for both the 1-hour and 8-hour ozone NAAQS. See 63 FR 57356 (October 27, 1998). The NOx SIP Call followed on the heels of the Ozone Transport Commission's (OTC) NOx Budget Trading Program, which was developed and adopted by the OTC member states, including the Commonwealth, as a regional approach to reducing NOx from large fossil-fueled combustion units. The Commonwealth adopted the OTC NOx Budget Trading Program in §§ 123.101—123.121 (relating to NOx allowance requirements). In the EPA's NOx SIP Call, the EPA imposed seasonal NOx reduction requirements on 22 states in the eastern part of the country (including this Commonwealth) and the District of Columbia. States subject to the NOx SIP Call submitted SIPs incorporating the NOx SIP Call requirements. The Commonwealth adopted the NOx Budget Trading Program in Chapter 145, Subchapter A (relating to NOx budget trading program) in response to the EPA's NOx SIP Call.

When ground-level ozone is present in concentrations in excess of the Federal health-based standard, public health is adversely affected. The EPA concluded that there is an association between ambient ozone concentrations and premature mortality, and increased hospital admissions for respiratory ailments, such as asthma. Further, although children, the elderly and those with respiratory problems are most at risk, even healthy individuals may experience increased respiratory ailments and other symptoms when they are exposed to ambient ozone while engaged in activities that involve physical exertion. Though the symptoms are often temporary, repeated exposure could result in permanent lung damage. The implementation of measures to address ozone air quality nonattainment in this Commonwealth is necessary to protect the public health.

In addition to causing adverse health effects, the EPA concluded that ozone affects vegetation and ecosystems, leading to reductions in agricultural crop and commercial forest yields; reduced growth and survivability of tree seedlings; and increased plant susceptibility to disease, pests and other environmental stresses, such as harsh weather. In long-lived species, these effects may become evident only after several years or even decades and have the potential for long-term adverse impacts on forest ecosystems. Ozone damage to the foliage of trees and other plants can also decrease the aesthetic value of ornamental species used in residential landscaping, as well as the natural beauty of parks and recreation areas. The economic value of some welfare losses due to ozone can be calculated, such as crop yield loss from both reduced seed production and visible injury to some leaf crops, such as lettuce, spinach, tobacco, as well as visible injury to ornamental plants, such as grass, flowers or shrubs. Other types of welfare loss may not be quantifiable, such as reduced aesthetic value of trees growing in heavily visited parks.

Fine particulates, or PM_{2.5}, are associated with a number of serious health effects, including premature mortality, aggravation of respiratory and cardiovascular disease (as indicated by increased hospital admissions, emergency room visits, absences from school or work and restricted activity days), lung disease, decreased lung function, asthma attacks and certain cardiovascular prob-

lems such as heart attacks and cardiac arrhythmia. The EPA estimated that attainment of the PM_{2.5} standards would prolong tens of thousands of lives and would prevent, each year, tens of thousands of hospital admissions as well as hundreds of thousands of doctor visits, absences from work and school and respiratory illnesses in children. Individuals particularly sensitive to fine particle exposure include older adults, people with heart and lung disease and children.

The EPA tightened the 24-hour PM_{2.5} standard in October 2006 and announced a more protective 8-hour ozone standard of 0.075 parts per million on March 12, 2008.

A number of petitions for review have been filed in the Federal Court of Appeals for the District of Columbia Circuit challenging various aspects of the CAIR. The cases have been consolidated into *State of North Carolina v. EPA*, Case No. 05-1244, which addresses CAIR-specific issues, and *Sierra Club v. EPA*, Case No. 06-1221, which addresses the EPA's response to North Carolina's petition to reduce interstate transport of fine particulate matter and ozone. It is possible that a ruling by the Court will lead to revisions to the CAIR by the EPA.

The EPA set two phases of NOx and SO₂ reductions in the CAIR, which are addressed in this final-form rulemaking. The first phase of NOx reductions begins in 2009 (covering 2009-2014) and the first phase of SO₂ reductions starts in 2010 (covering 2010-2014). The second phase of reductions for both NOx and SO₂ starts in 2015 (covering 2015 and thereafter). The EPA's emissions reduction requirements are based on controls that the EPA identified as being highly cost effective for EGUs.

Under the CAIR, states' SIP revisions were due by September 11, 2006. The Commonwealth intends to submit the final-form rulemaking, once adopted, to the EPA as a SIP revision to satisfy the EPA's CAIR SIP requirements.

In the event that a state did not submit its SIP revision on time, the EPA issued a FIP for each state covered by the CAIR at 71 FR 25328 (April 28, 2006). The FIPs are designed to regulate EGUs in affected states and to achieve emission reduction requirements established by the CAIR until states have approved SIPs to achieve the reductions. As the control requirement for FIPs, the EPA adopted the model trading rules provided in the CAIR, with minor changes to account for Federal rather than state implementation. The EPA stated that there are no sanctions associated with being subject to a CAIR FIP.

The EPA designed the model rules in the CAIR to parallel the NOx SIP Call model trading rules in 40 CFR Part 96 (relating to NOx Budget Trading Program and CAIR NOx and SO₂ Trading Programs for State Implementation Plans) and to coordinate with the Acid Rain Program. To have the EPA administer the trading programs and for sources to be able to trade allowances with sources in other states, the EPA requires states to adopt the model rules, with flexibility to modify sections regarding NOx allowance allocations and determine whether to include individual unit opt-in provisions. The EPA will no longer administer the NOx SIP Call Trading Program in 2009.

Under the model rules, states will allocate the CAIR NOx annual allowances and the CAIR NOx Ozone Season allowances. The Department's final-form rulemaking specifies how allowances will be calculated. The NOx Budget Trading Program allowances and CAIR NOx Ozone Season allowances cannot be used for compliance

with the annual CAIR NO_x emission reduction requirement. Pre-2009 NO_x Budget Trading Program allowances can be banked into the program and used by CAIR sources for compliance with the CAIR NO_x Ozone Season program. NO_x Budget Trading Program allowances of vintages (namely, the first year for which the allowance may be applied against emissions) 2009 and later cannot be used for compliance with CAIR or the CAIR FIP and will be superseded.

The CAIR SO₂ Cap and Trade Program will rely upon Title IV SO₂ allowances that have already been issued, although a state may provide CAIR SO₂ allowances to an opt-in source. Pre-2010 Title IV SO₂ allowances can be used for compliance with the CAIR. SO₂ reductions are achieved under the model rules by requiring sources to retire more than one allowance for each ton of SO₂ emissions. The emission value of an SO₂ allowance is independent of the year in which it is used, but is based upon its vintage. SO₂ allowances of vintage 2009 and earlier will offset one ton of SO₂ emissions. Vintages 2010-2014 will offset 0.5 ton of emissions and vintages 2015 and beyond will offset 0.35 ton of emissions.

The CAIR provides each state with a share of the compliance supplement pool, which is comprised of 200,000 CAIR NO_x annual allowances of vintage 2009. For the Commonwealth, the compliance supplement pool will be allocated by the EPA under the FIP in 2009.

Sources will monitor and report their emissions using 40 CFR Part 75 (relating to continuous emission monitoring). Compliance for the annual and ozone season NO_x Cap and Trade Programs, as well as the SO₂ Program, will be determined separately. A source found to have excess emissions shall surrender allowances sufficient to offset the excess emissions and surrender allowances from the next control period equal to three times the excess emissions.

If a state chooses to control EGUs in its CAIR program, as the Commonwealth is doing in the final-form rulemaking, then the state must establish a budget for EGUs. The EPA established Statewide budgets for the Commonwealth's CAIR trading programs that include only EGUs as follows: (1) an annual EGU NO_x budget of 99,049 tons per year for 2009-2014 and 82,541 tons per year for 2015 and thereafter; (2) a compliance supplement pool of 16,009 tons of CAIR NO_x annual allowances; (3) an Ozone Season EGU NO_x budget of 42,171 tons per year for 2009-2014 and 35,143 tons per year for 2015 and thereafter; and (4) an annual EGU SO₂ budget of 275,990 tons per year for 2010-2014 and 193,193 tons per year for 2015 and thereafter. The EPA calculated the amount of each state's EGU emissions cap, or budget, based on reductions that the EPA determined to be highly cost effective. The final-form rulemaking adopts EPA's budgets.

SO₂ allowances are allocated to sources by the EPA under the Acid Rain Program. Certain independent power production (IPP) facilities that are subject to the SO₂ emission control requirements of the CAIR, however, were exempted from the Acid Rain Program. Most of these IPP facilities are waste coal-fired facilities in this Commonwealth that combust coal mining refuse. Since states cannot allocate CAIR SO₂ allowances to these facilities, the owners and operators of these facilities will have to purchase or otherwise obtain the necessary allowances. To provide some relief for the lack of SO₂ allowances, the Department is allocating additional CAIR NO_x allowances to these facilities, the proceeds from the sale of

which the owners and operators of the IPP facilities may use to purchase CAIR SO₂ allowances.

The final-form rulemaking establishes general provisions to achieve reductions from EGUs currently covered by Chapter 145, Subchapter A. The NO_x reduction requirements are similar to the existing requirements of the NO_x Budget Trading Program and contain provisions regarding designated representatives of covered units, permitting, allowances, monitoring and opting-in. This final-form rulemaking establishes three CAIR trading programs which cover annual NO_x emissions, Ozone Season NO_x emissions and annual SO₂ emissions, respectively. Each of the three CAIR trading programs in the final-form rulemaking contains similar provisions.

The final-form rulemaking also makes minor changes to the requirements that already apply to small sources of NO_x in the five-county Philadelphia area. The final-form rulemaking requires these sources to surrender CAIR NO_x annual allowances and CAIR NO_x Ozone Season allowances rather than NO_x Budget Trading Program allowances if the sources' NO_x emissions exceed its NO_x emission limits beginning in 2009. A similar change is made for NO_x emissions from large stationary internal combustion engines that are not subject to the NO_x Budget Trading Program and for NO_x emissions from Portland cement kilns. The final-form rulemaking also addresses the transitioning of NO_x allowance allocations, NO_x emission limitations and NO_x monitoring requirements from the NO_x Budget Trading Program and addresses certain compliance issues. The final-form rulemaking establishes requirements for non-EGUs that are currently subject to the NO_x Budget Trading Program, including new non-EGUs, and also for EGUs that are exempt from CAIR but were subject to the NO_x Budget Trading Program.

Non-EGUs will continue to be covered for 2007 and 2008 by the NO_x allowances already allocated by the Department under the NO_x Budget Trading Program. Beginning in 2009 and continuing thereafter, the EPA will no longer administer the NO_x SIP Call. The EPA does not consider an allowance issued for 2009 or later in accordance with the NO_x SIP Call to be a CAIR NO_x Ozone Season allowance. Consequently, allowances for years 2009 and later allocated under the Commonwealth's NO_x Budget Trading Program are terminated and cannot be used for compliance with the CAIR NO_x Annual Trading Program or the CAIR NO_x Ozone Season Trading Program.

Both the EPA's CAIR NO_x model rules and CAIR FIP state that CAIR NO_x annual allowances and CAIR NO_x Ozone Season allowances do not constitute property rights. See 40 CFR 96.106(c)(6), 96.306(c)(6), 97.106(c)(6) and 97.306(c)(6) (relating to standard requirements). The same is true of CAIR SO₂ allowances. See 40 CFR 96.206(c)(6) and 97.206(c)(6) (relating to standard requirements). These provisions also provide that no provision of the CAIR programs, a CAIR permit application, a CAIR permit or the retired unit exemption and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit authorization. The final-form rulemaking incorporates by reference these Federal provisions.

As the Department stated in its 2005 allocation of NO_x allowances, action at the Federal or State level could affect the Department's allocations, and "... it is possible that NO_x allowances allocated for 2008-2012 would be terminated, limited or otherwise affected." See 35 Pa.B. 1714 (March 12, 2005). A NO_x allowance allocated

by the Department under the NOx Budget Trading Program does not constitute a property right. See § 145.6(b)(7) (relating to standard requirements). A "NOx allowance" is defined in § 145.2 (relating to definitions) as:

"An authorization by the Department under the NOx Budget Trading Program to emit up to 1 ton of NOx during the control period of the specified year or of any year thereafter, except as provided under § 145.54(f) (relating to compliance). No provision of the NOx Budget Trading Program, any permit, or an exemption under § 145.4(b) or § 145.5 and no provision of law will be construed to limit the authority of the Department or the Administrator to terminate or limit the authorization, which does not constitute a property right. For purposes of all sections of this subchapter except §§ 145.41—145.43 and 145.88, NOx allowance also includes an authorization to emit up to 1 ton of NOx during the control period of the specified year or of any year thereafter by the Department or the Administrator."

Under the transition provisions in the final-form rulemaking, non-EGUs currently subject to the NOx Budget Trading Program, including new non-EGUs, and CAIR-exempt EGUs will continue to be subject to the Commonwealth's NOx Budget Trading Program budget. The transition provisions are designed such that a unit must surrender CAIR NOx annual allowances and CAIR NOx Ozone Season allowances if the Statewide budget is exceeded and the NOx emissions from the unit exceed the unit's allowable emissions.

The CAIR NOx Ozone Season allowances allocated in November 2007 by the EPA to EGU owners and operators under the FIP replace the NOx allowances already allocated to EGUs by the Department under the NOx Budget Trading Program for 2009. The EPA has also allocated CAIR NOx annual allowances to EGUs for 2009 under the FIP. The Department expects that EGU owners and operators will receive CAIR NOx annual allowances and CAIR NOx Ozone Season allowances for 2010 and beyond from the Department under this final-form rulemaking, since the final-form rulemaking, once approved as a SIP revision, will replace the FIP.

The Department consulted with the Air Quality Technical Advisory Committee (AQTAC) on the final-form rulemaking on July 26, 2007, and September 20, 2007. On September 20, 2007, the AQTAC concurred with the Department's recommendation that the Board approve the final-form rulemaking, providing changes were made to the definitions and use of the terms "Tier I renewable energy qualifying resource" and "Tier II demand side management energy efficiency qualifying resource," providing changes were made to the public notice provisions for contacts for additional information, and providing the Department clarified the text and equations for allocations, and corrected miscellaneous typographical errors. The Department also consulted with the Air Committee of the Citizens' Advisory Council on October 15, 2007.

The final-form rulemaking is reasonably necessary to achieve and maintain the NAAQS and to satisfy related CAA requirements. The final-form rulemaking, when adopted, will be submitted to the EPA as a revision to the Commonwealth's SIP.

E. Summary of Regulatory Requirements in the Final-Form Rulemaking and Major Changes from the Proposed Rulemaking

The final-form rulemaking amends § 121.1 (relating to definitions) to add a definition of "vintage or vintage

year." The term is defined to refer to the calendar year assigned to an allowance by the issuing authority that designates the first year in which the allowance is valid to be applied against emissions. The definition has been amended in the final rulemaking for clarity.

The final-form rulemaking amends §§ 129.201 and 129.202 (relating to boilers; and stationary combustion turbines) to account for the transition provisions regarding the NOx Budget Trading Program and the CAIR NOx trading programs.

The final-form rulemaking amends § 129.204 (relating to emission accountability) by changing "NOx allowance" to "CAIR NOx allowance" and "CAIR NOx Ozone Season allowance." This amendment will require the small sources of NOx in the five-county Philadelphia area to surrender allowances from the annual and ozone season CAIR NOx trading programs if the sources' NOx emissions exceed their NOx emission limits, beginning in 2009. Surrender of both allowances is now required to avoid double emissions since during the ozone season both CAIR trading programs are active.

A similar change is proposed for NOx emissions from large stationary internal combustion engines that are not subject to the NOx Budget Trading Program and for NOx emissions from Portland cement kilns in §§ 145.113 and 145.143 (relating to standard requirements), respectively.

The final-form rulemaking also clarifies the existing provisions in § 129.204 regarding alternative calculation and recordkeeping procedures for the calculation of actual emissions from small sources of NOx in the five-county Philadelphia area.

The final-form rulemaking addresses the transition from the NOx Budget Trading Program to the CAIR NOx Trading Programs. New § 145.8 (relating to transition to CAIR NOx Trading Programs) provides that the final year for NOx allowance allocations to be made under the NOx Budget Trading Program will be 2008. It also indicates that allowance allocations made beyond 2008 are terminated, and retires the Department's non-EGU NOx Trading Program Budget of 3619 allowances established in § 145.40 (relating to State Trading Program budget). Allocations in 2009 will be made in accordance with the FIP. CAIR NOx Ozone Season allowance allocations for the control period starting May 1, 2010, and for each control period thereafter, will be distributed in accordance with the CAIR NOx Trading Programs. New § 145.8 provides that the emission limitations and monitoring requirements established in the NOx Budget Trading Program are replaced by the requirements in Chapter 145, Subchapter D (relating to CAIR NOx and SO₂ Trading Programs) pertaining to the CAIR NOx Ozone Season Trading Program beginning with the May 1, 2010, control period. This section also addresses compliance.

Proposed § 145.101 (relating to transition requirements for nonelectric generating units) was eliminated in the final-form rulemaking as the EPA commented that neither proposed transition methodology in it was as stringent as the NOx Budget Trading Program. The section addressed the transition for non-EGUs from the NOx Budget Trading Program to the CAIR NOx Ozone Season Trading Program. The EPA requires that states continue to meet their NOx SIP Call obligations. The EPA explains that if a state achieves all of its required CAIR emissions reductions by capping EGUs, then the state must modify its existing NOx SIP Call program to require that non-EGUs in the state that are currently participating in the NOx Budget Trading Program conform to the require-

ments of the CAIR Ozone Season NOx Trading Program with a trading budget that is the same as or more stringent than the budget in the state's currently approved SIP. See 70 FR 25256 (May 12, 2005).

Section 145.8(d) was added to address the transition. It caps all units covered under the NOx Budget Trading Program that do not transition into the CAIR NOx Trading Programs to 3,619 tons of emissions. Included in this group are any units that did not participate in the NOx Budget Trading Program even though it was an applicable requirement. Of this 3,619 ton emission cap, 5% (189 tons) is retired to allow for annual corrections and rounding issues and to cover units exempted under the NOx Budget Program. This subsection establishes a mechanism for determining allowable emissions caps for each unit based upon the previous ozone season's heat input. Units under this subsection will not be required to surrender allowances for emissions unless the total emissions for the ozone season from all units subject to the subsection exceed 95% of the cap or 3,438 allowances. If the total emissions exceed the cap, then each unit must turn in one CAIR NOx Ozone Season allowance and one CAIR NOx annual allowance for each ton of emissions the unit emits above its allowable. Units that emit less than their allowable will be able to use excess emissions for units regulated under §§ 129.201—129.204, 145.113 and 145.143. This section also addresses timing and compliance.

Chapter 145, Subchapter D of the final-form rulemaking incorporates by reference the EPA's CAIR NOx Annual Trading Program, CAIR NOx Ozone Season Trading Program and CAIR SO₂ Trading Program, with modifications.

Section 145.201 (relating to purpose) describes the purpose of Subchapter D. This section explains that Chapter 145, Subchapter D incorporates by reference the CAIR NOx Annual Trading Program and CAIR NOx Ozone Season Trading Program as a means of mitigating the interstate transport of fine particulates and NOx and incorporates the CAIR SO₂ Trading Program as a means of mitigating the interstate transport of fine particulates and SO₂. The section also explains that Chapter 145, Subchapter D establishes general provisions and applicability, allowance and supplemental monitoring, recordkeeping and reporting provisions.

The final-form rulemaking amends proposed § 145.202 (relating to definitions) to ensure that consistency with the Federal definitions is maintained. This section incorporates by reference the Federal definitions. The section also includes definitions specific to Subchapter D that are not included in the Federal programs.

The proposed definitions of the following terms have been eliminated: "Acid Rain Program," "Administrator," "bottoming-cycle cogeneration unit," "CAIR NOx allowance," "CAIR NOx Annual Trading Program," "CAIR NOx Ozone Season allowance," "CAIR NOx Ozone Season Trading Program," "CAIR NOx Ozone Season unit," "CAIR NOx unit," "CAIR SO₂ Trading Program," "CAIR SO₂ unit," "cogeneration unit," "combustion turbine," "commence commercial operation," "control period," "operator," "owner," "ozone season," "topping-cycle cogeneration unit," "unit," "useful power" and "useful thermal energy."

Several definitions in § 145.202 are derived from or relate to the Alternative Energy Portfolio Standards Act (AEPS Act) (73 P.S. §§ 1648.1—1648.8), as amended, including the term "Pennsylvania Alternative Energy

Portfolio Standard." The term "renewable energy qualifying source" is derived from the definition of "Tier I alternative energy source" in the AEPS Act, but includes only those sources included in the definition of "renewable energy" in this final-form rulemaking. The term "demand side management energy efficiency qualifying resource" is derived from the definition of "Tier II alternative energy resource" in the AEPS Act, but is limited by the definition of "demand side management" in this final-form rulemaking. At the request of the AQTAC, the terms "Tier I" and "Tier II" were deleted from the defined terms to avoid confusion with the AEPS Act definitions. The term "demand side management," which is also derived from the AEPS Act, does not include industrial by-product technologies to prevent double allocation of allowances under the CAIR NOx Trading Programs. The Department notes that a "demand side management energy efficiency qualifying resource" is a demand side energy efficiency measure with no associated NOx emissions.

Section 145.202 also includes a definition of the terms "EIA," "gross electrical output," "MWh—Megawatt-hour," "renewable energy" and "renewable energy certificate."

Section 145.203 (relating to applicability) describes the applicability of Chapter 145, Subchapter D. Section 145.203 states that this subchapter will apply to CAIR NOx units, CAIR NOx Ozone Season units and CAIR SO₂ units. The language extending applicability to Tier I renewable energy qualifying resources and Tier II demand side management energy efficiency qualifying resources was deleted as those resources are not subject to the EPA's CAIR programs.

Section 145.204 (relating to incorporation of Federal regulations by reference) establishes the incorporation by reference of the Federal CAIR regulations. This section specifies that the incorporation by reference includes appendices, future amendments and supplements to the Federal regulations. This is consistent with the existing Commonwealth law on incorporation by reference set forth in 1 Pa.C.S. § 1937(a) (relating to references to statutes and regulations). The section also incorporates the Federal definitions.

Section 145.205 (relating to emission reduction credit provisions) requires that the Department permanently reduce the Commonwealth's CAIR NOx trading budgets (annual and ozone season) and that the owner or operator of a unit subject to Chapter 145, Subchapter D surrender NOx allowances if NOx emission reduction credits or creditable emission reductions are considered in an applicability determination under Chapter 127, Subchapter E (relating to new source review) for a unit not subject to Chapter 145, Subchapter D, or if an emission trade under Chapter 127 (relating to construction, modification, reactivation and operation of sources) is authorized for a unit not subject to Chapter 145, Subchapter D, whenever the emission reduction credits, creditable emission reductions or emission trade are from a unit subject to Chapter 145, Subchapter D. An example of an emission trade under Chapter 127 is a trade at a facility under a plantwide applicability limit from a CAIR NOx unit to a non-CAIR NOx unit at the same facility. Section 145.205 carries over the requirements of §§ 145.40(b) and 145.90 (relating to State Trading Program budget; and emission reduction credit provisions). Though the wording is modified in the final-form rulemaking to reflect comment from the EPA, the meaning and requirements remain the same.

Section 145.211 (relating to timing requirements for CAIR NOx allowance allocations) addresses timing re-

quirements for CAIR NO_x allowance allocations under the CAIR NO_x Annual Trading Program. The timing requirements replace the timing requirements in the EPA's CAIR NO_x Annual Trading Program. Minor modifications were made in the final-form rulemaking in response to the EPA's comment regarding compliance with the EPA's CAIR regulations. Under the final-form rulemaking, the Department will issue allowances for 2010-2012 by April 30, 2008, will issue allowances for 2013 by April 30, 2009, and will issue allowances by April 30 each year thereafter for the next control period. In the final-form rulemaking, a provision is added for the Department to reserve 1.3% of the CAIR NO_x Trading Budget for each annual control period for allocation to the IPP facilities that are subject to the SO₂ emission control requirements of the CAIR but were exempted from the Acid Rain Program.

Under § 145.211(c), the Department will submit to the Administrator CAIR NO_x allowance allocations to new units by April 30 each year, beginning with 2011. Section 145.211(c) cross-references § 145.212(e), which states that the allocations to new units will be made for the fifth year after the year of the NO_x emissions. Section 145.211(c) states that the Department will base the allocations to new units on actual emissions in the calendar year preceding the year of the submission. Under the EPA's model rule in 40 CFR 96.141(c) (relating to timing requirements for CAIR NO_x allowance allocations), the Department would make CAIR NO_x allowance allocations for the CAIR NO_x Annual Trading Program to new units out of a new unit set-aside every year for the year of the allocation. The EPA explains in the CAIR NO_x Annual Trading Program SIP submission requirements in 40 CFR 51.123(o)(2)(ii)(C) (relating to findings and requirements for submission of State implementation plan revisions relating to emissions of oxides of nitrogen pursuant to the Clean Air Interstate Rule) that a state may adopt provisions that differ substantively from the EPA's allowance allocation provisions and still receive SIP approval as long as the state's methodology provides, among other things, that the state notifies the EPA regarding the amount of allowances to be allocated to new units by October 31 of the year of the allocation. The final-form rulemaking meets this notification requirement and provides new units with more advance notice of their allocations than does EPA's model rule. Under the final-form rulemaking, new units will receive future year allowances as compensation to cover their compliance obligations. Unit operators will be able to make an inter-company swap, or external trade or sale of the future vintage year allowances for current vintage year allowances that the operators will require for the new unit's compliance obligations.

Under § 145.211(d), the Department will publish notice of the proposed CAIR NO_x allowance allocations in the *Pennsylvania Bulletin* and will publish the final allocations after a 15-day public comment period. The section was modified to meet Federal timing requirements and to address AQTAC concerns regarding access to additional information.

The Department added § 145.211(e) for clarity in the allocation order. Under § 145.211(e), the Department describes the order in which allowances are issued, as commentators found that issue confusing under the proposed rule.

Section 145.212 (relating to CAIR NO_x allowance allocations) addresses allocation procedures for CAIR NO_x allowance allocations under the CAIR NO_x Annual Trad-

ing Program. Subsection (a) explains that the allocation requirements in the final-form rulemaking replace the allocation requirements in the EPA's CAIR NO_x Annual Trading Program.

The procedure for issuing CAIR NO_x allowances to new and existing units under the final-form rulemaking is based on the "new unit" allocation methodology in the CAIR model rules and FIP. The EPA's model rules and FIP would provide existing units with a permanent allocation based on historical operations. The EPA's method has several negative aspects. It rewards past inefficiency, does nothing to pay back efficiency improvements and in states like this Commonwealth with deregulated markets gives existing units an unwarranted and counterproductive competitive advantage. It could also fail to provide more productive units with an equitable share of allowances when market forces change the level of output from particular units. Using the EPA's new unit allocation method with an updating component remedies these deficiencies. The CAIR NO_x allocations described in subsections (c) and (d) are modified under the final-form rulemaking to provide clarity, but the methodology has not changed.

This Commonwealth has a deregulated electric market that seeks to achieve the economic and environmental benefits of competition and that is better served by the allocation method in the final-form rulemaking. This approach will allow for the timely integration of new sources into the general allocation pool, and provide allowances for energy efficiency/renewable energy resources on a regular and equitable basis so that these resources will not be placed at a competitive disadvantage. Commentators generally supported this approach.

Subsection (b) addresses the determination of baseline heat input for existing units in a manner that is consistent with the EPA's model rule approach for new units. No changes were made to this section and comments, which were specifically requested in the Preamble, supported this updating allocation methodology.

Subsection (c) explains that allocations will be made to existing units, qualifying resources and new units using baseline heat input data as determined under subsection (b) from a baseline year that is 6 calendar years before the vintage year of the allowances that are allocated. Subsection (c) also explains that the allocations for each control period beginning with 2010 will equal the number of CAIR NO_x allowances remaining in the Commonwealth's trading budget under 40 CFR 96.140 (relating to state trading budgets). This section was modified to address clarity and timing issues but the procedure was not modified.

Under the EPA model rule, a state would maintain a set-aside of 5% of the budget of CAIR NO_x allowances for allocation to new units. The Department is not proposing a set-aside for new units; instead, the Department proposes under § 145.212(c) that new unit allowances be allocated from the same pool of allowances as those allocated to other units and qualifying resources to prevent the problem of over-subscription of the new source set-aside experienced under the NO_x Budget Trading Program. The Board specifically requested comment on the proposed approach of allocating future CAIR NO_x allowances to new units rather than allocating CAIR NO_x allowances to new units under a new unit set-aside. The new source allocation methodology was not changed as comments were generally favorable.

Subsection (d) further describes the allocation calculation process for existing units and qualifying resources

and states that the Department will make CAIR NO_x allowance allocations under this subsection after the Department makes CAIR NO_x allowance allocations to new units under subsection (e). In the final-form rulemaking, this section was modified for clarity but remains basically as proposed.

Subsection (e) explains that the Department will allocate CAIR NO_x allowances to new units by March 31, 2011, and March 31 each year thereafter. A unit may receive a "new unit" allocation under subsection (e) in the same year it receives an allocation based on qualifying converted baseline heat input for regular sources. These concurrent allocations will continue until the unit has already received allowances of the same vintage year as the year in which the emissions that support the "new unit" allocation were generated. At that point, the unit will have transitioned into regular source status and will no longer be eligible for new unit allocations. NO_x allowance allocations to new units will be made for the 5th year after the year of the emissions. For example:

A unit that begins operations in 2010 will be allocated 2015 CAIR NO_x allowances in 2011, based on 2010 emissions.

In 2012, the unit in the example will be allocated, as a new unit, 2016 CAIR NO_x allowances based on 2011 emissions and 2016 CAIR NO_x allowance allocations using baseline heat input for 2010.

This pattern continues. At the end of 2015, the unit loses its new source status since it has been issued 2016 allowances using 2010 baseline heat input. It will be allocated as a source under § 145.212(b) each year thereafter.

Subsection (e) remains unchanged in the final-form rulemaking except for a minor clarification, as it was unaffected by timing requirement changes in other subsections.

Allocations to new units in 2009 will be made directly by the EPA under the FIP.

Subsection (f) applies to allocations to qualifying resources and units exempted under the EPA's Acid Rain Program. Qualifying resources may be issued allowances under this provision if they submit an application that meets the requirements of subsection (f). The number of allowances allocated to them will be determined by converting the certified quantity of electric energy production, useful thermal energy and energy equivalent value of the measures approved under the Pennsylvania Alternative Energy Portfolio Standard to equivalent thermal energy. The term "equivalent thermal energy" is clarified as the baseline heat input to be used in the allocation process in the final-form rulemaking. The final-form rulemaking does not limit the CAIR NO_x allowances that can be allocated to qualifying resources as a whole. The Board specifically sought comment on the proposed approach to allocating CAIR NO_x allowances on the basis of new renewable energy sources in this Commonwealth and demand-side management under the Pennsylvania Alternative Energy Portfolio Standard, including the appropriateness of including load shifting as a demand side management measure. The Department reviewed the issue carefully and determined that by definition any demand side management that results in a NO_x emission would not be eligible for an allocation.

Units exempted under the EPA's Acid Rain Program, and which therefore did not receive SO₂ allowances and yet are subject to the CAIR SO₂ Trading Program, may receive an additional amount of CAIR NO_x allowances

under subsection (f), based on a ratio of one CAIR NO_x allowance to every 8 tons of SO₂ emitted. This ratio is derived from historical price data showing a 1:8 price ratio for NO_x and SO₂ allowances. Up to 1.3% of the Commonwealth's annual NO_x budget is available for allocation to these units for each control period from 2010-2015, as described in subsection (f)(2) and (4). This allocation will be reduced by any excess NO_x allowances a unit received over its actual emissions for the control period. The final-form rulemaking specifies that if a unit opts-in to the Acid Rain Program, the owner or operator will get allowances equal to the emissions not covered by the opt-in at a ratio of one CAIR NO_x allowance for every 8 tons of SO₂ that were not covered. The final-form rulemaking also amends the equation used to pro-rate the additional NO_x allocations if more than 1.3% of the Commonwealth's CAIR NO_x Trading Budget is requested by these units, partly in response to the AQTAC's recommendation. Although the proposed rulemaking proposed the first allocation of these additional allowances would be made in 2008, timing constraints require that in the final-form rulemaking the first allocation is made in 2011 for the 2010 control period. This pattern continues until the last allocation in 2017 for the 2016 control period. Subsection (f)(5) provides that the Department may extend, terminate or otherwise modify the allocation after providing public notice and a 30-day public comment period. The allocation of NO_x allowances to these units is discussed more completely under Section D of this order. The Department also clarified this subsection by eliminating the term "cost equivalent."

Section 145.213 (relating to supplemental monitoring, recordkeeping and reporting requirements for gross electrical output and useful thermal energy for units subject to 40 CFR 96.170—96.175) contains monitoring, recordkeeping and reporting requirements for gross electrical output and useful thermal energy for units that are subject to the monitoring and reporting requirements of the EPA's CAIR rules. These requirements in the final-form rulemaking are in addition to the requirements in the CAIR rules, and are included to ensure that allocations are made on an equitable basis. This can only be accomplished by requiring all units to collect and report data that meets a standard level of accuracy, consistency and accountability. Most units already have the necessary instrumentation and recordkeeping measures in place. No changes have been made in the final-form rulemaking.

The provisions in the proposed rulemaking that relate to the CAIR NO_x Ozone Season Trading Program are nearly identical to those regarding the CAIR NO_x Annual Trading Program. The differences relate to the different control periods (May through September, versus entire year) and different Federal cross-references. Consequently, the discussion of §§ 145.211—145.213 pertain also to §§ 145.221—145.223 (relating to additional requirements for CAIR NO_x Ozone Season Trading Program), with the relevant Federal citations being specified in Annex A. No provision is made in § 145.222 (relating to CAIR NO_x Ozone Season allowance allocations) as in § 145.212 for units exempted under the EPA's Acid Rain Program.

F. *Summary of Major Comments and Responses on the Proposed Rulemaking*

The Board approved publication of the proposed rulemaking at its meeting on February 20, 2007. The proposed rulemaking was published at 37 Pa.B. 2063 (April 28, 2007). Public hearings were held on May 29 in Pittsburgh, May 30 in Harrisburg, and May 31 in Norristown.

The Board received comments from 18 commentators. The Department prepared a Comment and Response document in which the Department responds to comments received during the public comment period. The Comment and Response document is available on the Department's web site at www.depweb.state.pa.us (Quick Access: Public Participation). The Comment and Response document provides detailed responses to these comments and explains the Department's position.

The following is a discussion of the major comments received during the public comment period.

Adoption of Federal Program

Several commentators urged the Commonwealth to adopt the EPA's CAIR program with the fewest exceptions. The final-form rulemaking adopts the EPA's CAIR NOx Trading Programs by reference, with some amendments. The Department minimized amendments to the EPA's NOx Trading Programs to accommodate this Commonwealth's deregulated electric generation market.

Adjusted heat input allocation methodology

A number of commentators expressed support or indifference to Pennsylvania's allocation methodology. One commentator believed the allocation methodology did not incorporate the EPA's allocation methodology. In the final-form rulemaking, the Department did not follow the EPA's allocation methodology because it is not the best methodology for a deregulated electricity market; it would limit competition and discourage efficiency.

Transition of non-EGUs

Several commentators stated that new non-EGUs should not get allocations from the EGU Program. One commentator expressed its interest in the Department's unit choice methodology of transferring non-EGUs into CAIR. EPA Region III advised the Department that neither of the transition methodologies in the proposed rulemaking would be approved as the EPA believes they are not as stringent as the NOx SIP Call requirements that currently exist for non-EGUs. The EPA stated that the units subject to the NOx SIP Call, which have been covered under the Commonwealth's NOx Budget Trading Program, would need to continue to monitor using 40 CFR Part 75 (relating to continuous emission monitoring), and that each unit would need to maintain an account and an authorized account representative. In response, the Department expanded the proposed transition methodology to cover new non-EGUs and CAIR-exempted EGUs that are subject to the NOx SIP Call, while maintaining the non-EGU budget cap of the NOx Budget Trading Program. The final-form rulemaking requires the units to meet the reporting and monitoring requirements of the EPA's CAIR NOx Trading Programs.

Using CAIR NOx Allowances to Account for NOx Emissions from Non-NOx Budget Trading Program Units

Three commentators suggested that the regulation should allow non-NOx Budget Trading Program units to buy and retire CAIR NOx allowances to account for their NOx emissions. The commentators recommend expansion of this type of program to account for emissions from High Electric Demand Day (HEDD) units. While the Department supports market-based programs as a method to improve air quality, the final-form rulemaking does not include the commentators' recommended revisions. The methods suggested by the commentators to account for NOx emissions from HEDD units and other sources may be considered along with other options at a later date.

Addressing ERC Provisions in CAIR

Four commentators felt that it was unnecessary to link the ERC and the allowance programs and that the provision requiring the surrender of NOx allowances would make those ERCs too expensive for a nonaffected source to procure. They argued that the real consequence would be that nonaffected industries would have a more difficult time if there were some future economic development of primary industries in this Commonwealth. The Department disagrees that this provision should be eliminated. The provision is a necessary component of an allowance trading program and already exists in current regulations. The provision is needed to prevent "double emissions" from occurring as a result of the overlap of the allowance and ERC provisions that cover the same emissions. If those excess allowances are not retired, the CAIR unit can sell them to another CAIR unit, which could in turn increase its emissions through the use of those allowances. As a result, § 145.205 is necessary to ensure that the reductions continue to remain permanent.

The final-form rulemaking does not require the ERC generating unit to surrender more allowances than it was allocated. Under the final-form rulemaking, however, for the non-CAIR unit to be able to commence operation or increase emissions, the ERC generating unit must surrender both CAIR NOx annual allowances and CAIR NOx Ozone Season allowances, unless there is a restriction on using the ERCs during ozone season. This is also designed to prevent double emissions. Once the ERC generating unit surrenders the allowances, the Department will adjust the Commonwealth's CAIR NOx Ozone Season Trading Program budget and CAIR NOx Annual Trading Program budget. The ERC generating unit does not need to continue surrendering allowances. Hence, the provisions in the final-form rulemaking avoid penalizing the ERC generating unit by spreading the allowance reduction burden evenly across all sources participating in the CAIR NOx Trading Programs.

Many commentators indicated support for maintaining the ERC provision in the CAIR rule. EPA Region III suggested revised language to clarify the ERC provision. The Department agrees with these commentators and the final-form rulemaking incorporates the EPA's suggested revisions, with minor modifications.

Allocation Timing Consistent with Federal Program

The EPA and several other commentators asserted that the proposed allocation timing methodology did not meet the Federal requirements in CAIR. The timing and new source allowance allocation provisions have been modified in the final-form rulemaking to track the requirements in the EPA's CAIR Programs.

Allowance Allocation to Qualifying Resources

Many commentators expressed strong support for the provisions that allow for an allocation to new energy efficiency and new renewable energy resources without a limitation or set-aside. The Department appreciates the support. The allocation of allowances will improve air quality and energy efficiency. Allowance allocations should be based upon market decisions made by utilities and consumers rather than derived by limits and set-asides. Providing for allowance allocation to these resources will also build useful market flexibility into the cap and trade program.

Several commentators commented on the allocations to renewable resources, variously recommending limiting the allocation, asking for the cost impact and an explanation as to why a cap is unnecessary, recommending

against allocating allowances to renewables because they do not have NOx emissions and indicating that the fuel adjustment methodology allocating the units 3,413 Btu/kWh, the equivalent thermal energy for converting electrical output to heat input, should be used. The Department disagrees, except as to the conversion rate. The market determines the mix of generation resources needed to meet growing demand. Not allocating NOx allowances, or limiting the amount of the allocation, to renewable resources would be anti-competitive. Furthermore, if the market decides to meet growing demand for electricity by the construction of new fossil fuel generation, the NOx allowance cost to all fossil units will be double the NOx allowance cost of meeting that demand with renewable generation due to the fuel adjustment process by which renewables get 3,413 Btu/kWh as an adjustment factor, noncoal fossil units get 6,775 Btu/kWh and coal fired fossil units get 7,900 Btu/kWh. The Department has clarified the fuel adjustment and standard adjustment issue in the final-form rulemaking, including adding the 3,413 Btu/kWh conversion for electrical output to heat input.

Allocation of NOx Allowances to PURPA Units

Support was expressed for providing allowances to the independent IPPs that did not receive SO₂ allowances under the Acid Rain Program. One commentator thought an additional allocation equal to 1.3% of the seasonal CAIR budget should be added. EPA Region III requested clarification of this subsection and specifically of the term "cost equivalent." The Department appreciates and agrees with the supportive comments. Allocation of CAIR NOx allowances equal to 1.3% of the Commonwealth's CAIR NOx Trading budget is an equitable method to provide assistance to units that could have received allowances under the Acid Rain Program, but did not because they were exempted during the allocation period. The use of waste coal to generate electricity provides Pennsylvania with valuable environmental benefits. The Department disagrees, however, that CAIR NOx Ozone Season allowances should be issued to these units. Issuing CAIR NOx Ozone Season allowances would have a greater impact on units that operate primarily in the ozone season, such as natural gas fired units that do not need to retire Acid Rain Program allowances but that were also not allocated Acid Rain Program allowances. The Department has clarified the language in this section, but has left the basic mechanics and allocation process intact.

Allocation of Allowances to New Sources

Many commentators supported or were indifferent to the Department's approach of allocating allowances to new units rather than establishing a set aside. One commentator was concerned with the liquidity of allowances under the proposed method but supportive of the Department's proposed methodology. The Department responds that bringing new units into the regular allocation quickly without oversubscription of a new unit set-aside benefits the market and air quality. In addition, any liquidity issues of future allowances will also affect banked allowances. This means the price of future allowances would be expected to respond almost proportionately to banked allowance prices. This happens because there is no longer any progressive flow control and banked allowances no longer lose compliance value. The Department does not believe there can be a liquidity problem with regard to future allowances unless that liquidity issue is shared by current and banked allowances as well.

Definition recommendations

Three commentators recommended that the Department change the definition of "vintage or vintage year." The Department has changed the definition to address the commentators' concerns.

These commentators also recommended that the Department change or eliminate the definition of "demand side management," since some demand side management activities do not eliminate NOx emissions. The activities of concern mentioned by the commentators, however, namely load shifting and use of industrial byproducts, would not qualify as demand side qualifying resources. The definition in the final-form rulemaking of "demand side management energy efficiency qualifying resource" is, "a demand side management energy efficiency measure that has no associated NOx emission and that generates certified alternative energy credit under the applicable Pennsylvania Alternative Energy Portfolio Standard." There is no need, therefore, to change or eliminate the definition.

The same commentators recommended that the Department change the definition of "renewable energy" if the intent of the definition was to exclude electric energy generated from certain fuels. The Department disagrees with the suggested change as it would limit renewable energy and energy efficiency to that which is "electric energy generated" and would eliminate qualified energy efficiency that reduces electric demand and thermal energy that may displace electric demand. The Department has not revised the final-form rulemaking in response to the comment.

Applicability

EPA Region III commented that renewable energy and energy efficiency units should be removed from the applicability section; the Department has deleted them from § 145.203 in the final-form rulemaking.

General Comments

One commentator suggested that the monitoring requirements for non-EGUs should not reference output parameters. The Department agrees. The final-form rulemaking does not require non-EGUs to provide for this type of monitoring.

EPA Region III commented that the transitional provision for non-EGUs into the CAIR NOx Programs does not meet the Federal requirements. The commentator asserted that the transitional provision must specify that new non-EGUs and CAIR-exempted EGUs must be included. In response, the final-form rulemaking contains new methodology that includes new non-EGU units and CAIR-exempt EGUs.

One commentator expressed concern that § 145.212 was inconsistent and needed clarification concerning subsections (d) and (f). The final-form rulemaking addresses the commentator's concerns and clarifies § 145.212.

EPA Region III advised the Department that the EPA will not approve the proposed methodology for transitioning non-EGU's into the CAIR Program due to the inclusion of compliance options that the Federal rules do not allow. The Department amended the non-EGU transition methodology in the final-form rulemaking to include a compliance option that addresses the commentator's concern and is designed to meet a preference expressed by industry and the AQTAC not to transition the non-EGUs into the CAIR Trading Program. The new transition methodology prevents certain issues from arising, like backsliding from progressive flow control to double emis-

sion credits due to overlapping of the two CAIR NO_x Trading Programs, by carrying over the non-EGU trading budget from the NO_x Budget Trading Program.

EPA Region III and the IRRC recommended that since the proposed rule incorporates the EPA's CAIR by reference, it should not include definitions of words already defined in the EPA's CAIR. The commentators offered that the Department may include definitions it needs for its rule's allocation procedures and recommends defining various words. The final-form rulemaking has been amended not to include those definitions already defined under the Federal requirements.

EPA Region III commented that renewable energy and energy efficiency units should be removed from the applicability section. The Department has removed them from this section in the final-form rulemaking.

EPA Region III advised the Department to clarify and correct inconsistencies in § 145.212(b)—(g) along with § 145.222(a)—(g). The commentator advised the Department to include the order of the allocation procedures, timing requirements, clarifying terms and the meaning of certain provisions. The Department amended the final-form rulemaking to address the commentator's concerns. Sections 145.211(e) and 145.221(e) were added to ensure that the order of allocation from the allowance budgets to various types of resources is clear. The Department amended supporting language in §§ 145.212 and 145.222 for clarity.

EPA Region III advised the Department that the allowance timing requirements as proposed were not approvable by the EPA. The Department adjusted the timing requirements in the final-form rulemaking to meet the Federal CAIR's timing requirements.

G. Costs and Compliance

Benefits

The citizens of this Commonwealth and regulated community are the major benefactors of these regulatory provisions. CAIR NO_x allowances are distributed based on ongoing production and service activities in a manner that promotes more efficient use of remaining fossil fuel resources while imposing as little influence on the energy market as possible. In contrast, the FIP provides permanent allocations to entities whether or not they choose to provide economically beneficial production or services, and it rewards past inefficiency of a subset of older units at the expense of all other market participants and this Commonwealth's economy. This is partially mitigated by this final-form rulemaking through the distribution of allowances to the full range of energy resources that compete in the energy market to minimize the rule's economic influence.

Allowances permit emissions that have adverse health impacts and costs to this Commonwealth. The fastest and greatest cost savings to both existing units and this Commonwealth's economy will be made by speeding the transition to lower emitting technologies.

Fossil generation technologies receive allocation rates that are higher than all others, and allocations are provided in full and on a first priority basis to new fossil units. This recognizes the inherent thermal conversion limitations of current combustion technologies. This approach is necessary to allow the current use of fossil generation units and resources, while providing a way to not have allocations result in slowing the gradual transition to new more efficient generation fossil and nonfossil energy resources. Existing generating units have already

received the entire pool of SO₂ allowances from the Federal government and thereby retain a competitive advantage over alternative resources under this final-form rulemaking.

Fossil unit competitiveness is enhanced from an allowance perspective when alternative resources enter the market to meet demand, since alternative resources create twice as much of a reduction in allowance demand as new fossil units. More allowances become available to allocate to existing units, and less expensive allowances become available on the market as well. A recent analysis from the Energy Information Administration of the United States Department of Energy of a National carbon cap proposal affecting the power sector confirms that increasing efficiency and renewables in the power system that is under a historically-based cap (which CAIR is) reduces the compliance burden for the conventional power units. Increased alternatives such as efficiency measures can also yield compound economic savings as they reduce the need for high cost peaking generation.

Fuel costs are another benefit. Alternatives and new units will reduce demand for fossil fuels and will serve to moderate price increases, even more greatly if replacement of inefficient fossil units with more fuel efficient units occurs.

These regulatory provisions help to ensure that new clean and efficient fossil energy generators and alternative energy resources will be built in this Commonwealth; whereas, the Commonwealth's Alternative Energy Portfolio Standard law does not constrain these resources to this Commonwealth.

Twenty-eight other Eastern states must adopt a similar program. Many of the states have adopted programs that do not provide these benefits. Therefore, it is anticipated that this final-form rulemaking will place Pennsylvania units at a competitive advantage.

Compliance Costs

The CAIR FIP, not this final-form rulemaking, has already established the requirement to account for emissions and surrender allowances, therefore the potential cost associated with these requirements is not ascribable to this final-form rulemaking. This rulemaking provides the same number of allowances to electric power market participants in a manner that increases productivity in this Commonwealth and includes several cost savings as outlined in the benefits section relating to fuel and allowance costs.

The FIP may represent a cost savings to many affected Pennsylvania generating units as it is now more cost effective for large uncontrolled units that emit the majority of the emissions to install scrubbers and sell previously issued SO₂ allowances. The CAIR SO₂ Trading Program has raised the value of all banked SO₂ allowances considerably, and increased the value of new and existing control installations. Thus, the SO₂ controls could not only pay for themselves with allowance sales, but could also yield unforeseen revenues. The final-form rulemaking does not affect these aspects of the Federal program.

It is not possible to estimate the degree of savings accruing to this final-form rulemaking with any useful degree of certainty. To estimate with any precision the amount of accrued cost savings associated with a market based regulatory scheme requires a modeled analysis of this Commonwealth's energy economy, a predictable set of future energy prices and surrounding law and policies. The energy market and surrounding regulatory environ-

ment is undergoing rapid change. It is safe, however, to estimate that the benefits of efficiency enhancing rules will only increase with increased upward pressure on fuel prices.

The final-form rulemaking allocates the entire Federal budget and virtually the same amounts of NOx allowances to each unit as does the Federal program. It also provides added potential for savings and revenues from the NOx portion of the Federal program. Electricity generation companies that turn over their fleets toward both more efficient fossil units and renewable resources that have no emissions will receive an increased share of allowances over that which would occur under the FIP. Entities that invest in more efficient technologies will experience greater cost savings under these regulations.

Holding companies of electricity generators will receive allowances from subsidiaries that are engaged in providing energy efficiency and other alternatives mandated under the Commonwealth's Advance Energy Portfolio Standard law. As outlined in the benefits section, the overall net effect of the rule will reduce costs for the regulated entities as well as consumers who will experience these effects in lower energy costs than would occur under the FIP.

Compliance Assistance Plan

The Department plans to educate and assist the regulated community and the public with understanding these new regulatory requirements through various means, including field inspector contacts, mailings and the Small Business Compliance Assistance Program.

Paperwork Requirements

This final-form rulemaking utilizes the existing Federal recordkeeping and reporting requirements, as expanded slightly under the CAIR model rules. The EPA will not administer the allowance tracking portion of the program for a state nor allow a state to engage in interstate allowance trading unless the state's CAIR program includes these recordkeeping and reporting requirements. In addition, the final-form rulemaking specifies reporting of electrical and useful thermal output to ensure the producing facilities receive the correct amount of allowances.

H. Pollution Prevention (if applicable)

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 final-form rulemaking incorporates the following pollution prevention incentives:

The final-form rulemaking modestly increases the cost of emissions from fossil-fired power generators and thereby encourages fewer polluting power supply options to be adopted. The NOx portion of the final-form rulemaking includes provisions for the owners of alternative power generation resources to receive NOx allowances in proportion to the pollution prevention benefits the resources provide. These resources include wind, solar and energy efficiency

projects. Because the NOx allowances for these resources are based on the output, on par with fossil generation, the final-form rulemaking gives no competitive advantage to one form of energy production over the other in the energy market. In this way, the final-form rulemaking increases the potential for the adoption of less polluting resources.

I. Sunset Review

This final-form rulemaking 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.

J. Regulatory Review

Under section 5(a) of the Regulatory Review Act (act) (71 P. S. § 745.5(a)), on April 17, 2007, the Department submitted a copy of the notice of proposed rulemaking, published at 37 Pa.B. 2063, to Independent Regulatory Review Commission (IRRC) and the Chairpersons of the House and Senate Environmental Resources and Energy Committees for review and comment.

Under section 5(c) of the act, IRRC and the Committees were provided with copies of the comments received during the public comment period, as well as other documents when requested. In preparing this final-form rulemaking, the Department has considered all comments from IRRC, the Committees and the public.

Under section 5.1(j.2) of the act (71 P. S. § 745.5a(j.2)), on March 5, 2008, the final-form rulemaking was deemed approved by the House and Senate Committees. Under section 5.1(e) of the act (71 P. S. § 745.5a(e)), IRRC met on March 6, 2008, and approved the final-form rulemaking.

K. Findings of the Board

The Board finds that:

(1) Public notice of proposed rulemaking was given under sections 201 and 202 of the act of July 31, 1968 (P. L. 769, No. 240) (45 P. S. §§ 1201 and 1202) and regulations promulgated thereunder at 1 Pa. Code §§ 7.1 and 7.2.

(2) A public comment period was provided as required by law, and all comments were considered.

(3) These regulations do not enlarge the purpose of the proposed rulemaking published at 37 Pa.B. 2063.

(4) These regulations are necessary and appropriate for administration and enforcement of the authorizing acts identified in Section C of this order.

(5) These regulations are necessary for the Commonwealth to achieve and maintain ambient air quality standards and to satisfy related CAA requirements.

L. Order of the Board

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

(a) The regulations of the Department, 25 Pa. Code Chapters 121, 129 and 145, are amended by amending §§ 121.1, 129.201, 129.202, 129.204, 145.113 and 145.143; and by adding §§ 145.8, 145.201—145.205, 145.211—145.213 and 145.221—145.223 to read as set forth in Annex A, with ellipses referring to the existing text of the regulations.

(b) The Chairperson of the Board shall submit this order and Annex A to the Office of General Counsel and the Office of Attorney General for review and approval as to legality and form, as required by law.

(c) The Chairperson of the Board shall submit this order and Annex A to the IRRC and the Senate and House Committees as required by the act.

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

(e) This order shall take effect immediately upon publication in the *Pennsylvania Bulletin*.

(Editor's Note: The amendment of §§ 129.201 and 129.202 was not included in the proposal at 37 Pa.B. 2063. The proposal to add § 145.101 has been withdrawn. See 38 Pa.B. 1780 (April 12, 2008) for a notice concerning this rulemaking.)

KATHLEEN A. MCGINTY,
Chairperson

(Editor's Note: For the text of the order of the Independent Regulatory Review Commission relating to this document.)

Fiscal Note: Fiscal Note 7-411 remains valid for the final adoption of the subject regulations.

Annex A

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

**Subpart C. PROTECTION OF NATURAL
RESOURCES**

ARTICLE III. AIR RESOURCES

CHAPTER 121. GENERAL PROVISIONS

§ 121.1. Definitions.

The definitions in section 3 of the act (35 P. S. § 4003) apply to this article. In addition, the following words and terms, when used in this article, have the following meanings, unless the context clearly indicates otherwise:

* * * * *

Vintage or vintage year—The calendar year assigned to an allowance by the issuing authority that designates the first year in which it is valid to be applied against emissions.

* * * * *

**CHAPTER 129. STANDARDS FOR SOURCES
ADDITIONAL NO_x REQUIREMENTS**

§ 129.201. Boilers.

(a) By May 1, 2005, and each year thereafter, the owner or operator of a boiler that meets the definition of a boiler in § 145.2 (relating to definitions) located in Bucks, Chester, Delaware, Montgomery or Philadelphia County shall comply with this section and § 129.204 (relating to emission accountability). This section does not apply to naval marine combustion units operated by the United States Navy for the purposes of testing and operational training or to units that combust municipal waste at a facility that is permitted as a resource recovery facility under Part I, Subpart D, Article VIII (relating to municipal waste).

(b) By October 31, 2005, and each year thereafter, the owner or operator of the boiler shall calculate the difference between the actual emissions from the unit for the period from May 1 through September 30 and the allowable emissions for that period.

(c) The owner or operator shall calculate allowable emissions by multiplying the unit's cumulative heat input for the period by the applicable emission rate in paragraph (1) or (2).

(1) The emission rate for a boiler with a nameplate rated capacity of greater than 100 million Btu/hour but less than or equal to 250 million Btu/hour shall be as follows:

(i) For a boiler firing natural gas or a boiler firing a noncommercial gaseous fuel, 0.10 pounds NO_x per million Btu heat input.

(ii) For a boiler firing solid or liquid fuel, 0.20 pounds of NO_x per million Btu heat input.

(2) The emission rate for a boiler with a nameplate rated capacity of greater than 250 million Btu/hour that is not subject to § 145.8(c) or (d) (relating to transition to CAIR NO_x trading programs) shall be 0.17 pounds NO_x per million Btu heat input.

§ 129.202. Stationary combustion turbines.

(a) By May 1, 2005, and each year thereafter, the owner or operator of a stationary combustion turbine with a nameplate rated capacity of greater than 100 million Btu/hour located in Bucks, Chester, Delaware, Montgomery or Philadelphia County shall comply with this section and § 129.204 (relating to emission accountability). This section does not apply to naval marine stationary combustion turbines operated by the United States Navy for the purposes of testing and operational training.

(b) By October 31, 2005, and each year thereafter, the owner or operator of the stationary combustion turbine shall calculate the difference between the actual emissions from the unit for the period from May 1 through September 30 and the allowable emissions for that period.

(c) The owner or operator shall calculate allowable emissions by multiplying the unit's cumulative heat input for the period by the applicable emission rate set forth in paragraph (1) or (2).

(1) The emission rate for a stationary combustion turbine with a nameplate rated capacity of greater than 100 million Btu/hour but less than or equal to 250 million Btu/hour heat input shall be as follows:

(i) A combined cycle or regenerative cycle stationary combustion turbine:

(A) When firing natural gas or a noncommercial gaseous fuel, 0.17 lbs NO_x/MMBtu or 1.3 lbs NO_x/MWH.

(B) When firing oil, 0.26 lbs NO_x/MMBtu or 2.0 lbs NO_x/MWH.

(ii) A simple cycle stationary combustion turbine:

(A) When firing natural gas or a noncommercial gaseous fuel, 0.20 lbs NO_x/MMBtu or 2.2 lbs NO_x/MWH.

(B) When firing oil, 0.30 lbs NO_x/MMBtu or 3.0 lbs NO_x/MWH.

(2) The emission rate for a stationary combustion turbine with a nameplate rated capacity of greater than 250 million Btu/hour heat input that is not subject to § 145.8(c) or (d) (relating to transition to CAIR NO_x trading programs) is 0.17 lbs NO_x per million Btu heat input.

§ 129.204. Emission accountability.

(a) This section applies to units described in §§ 129.201—129.203 (relating to boilers; stationary combustion turbines; and stationary internal combustion engines).

(b) The owner or operator shall determine actual emissions in accordance with one of the following:

(1) If the owner or operator of the unit is required to monitor NO_x emissions with a CEMS operated and maintained in accordance with a permit or State or Federal regulation, the CEMS data reported to the Department to comply with the monitoring and reporting requirements of this article shall be used. Any data invalidated under Chapter 139 (relating to sampling and testing) shall be substituted with data calculated using the potential emission rate for the unit or, if approved by the Department in writing, an alternative amount of emissions that is more representative of actual emissions that occurred during the period of invalid data.

(2) If the owner or operator of the unit is not required to monitor NO_x emissions with a CEMS, one of the following shall be used to determine actual emissions NO_x:

(i) The 1-year average emission rate calculated from the most recent permit emission limit compliance demonstration test data for NO_x.

(ii) The maximum hourly allowable NO_x emission rate contained in the permit or the higher of the following:

(A) The highest rate determined by use of the emission factor for the unit class contained in the most up-to date version of the EPA publication, "AP-42 Compilation of Air Pollution Emission Factors."

(B) The highest rate determined by use of the emission factor for the unit class contained in the most up-to date version of EPA's "Factor Information Retrieval (FIRE)" data system.

(iii) CEMS data, if the owner or operator elects to monitor NO_x emissions with a CEMS. The owner or operator shall monitor emissions and report the data from the CEMS in accordance with Chapter 139 or Chapter 145 (relating to interstate pollution transport reduction). Any data invalidated under Chapter 139 shall be substituted with data calculated using the potential emission rate for the unit or, if approved by the Department in writing, an alternative amount of emissions that is more representative of actual emissions that occurred during the period of invalid data.

(iv) An alternate calculation and recordkeeping procedure based upon emissions testing and correlations with operating parameters. The operator of the unit shall demonstrate that the alternate procedure does not underestimate actual emissions throughout the allowable range of operating conditions. In regard to obtaining the Department's approval for an alternate calculation method and recordkeeping procedure for actual emissions, the owner or operator may request an adjustment to the allowable emissions calculations set forth in §§ 129.201—129.203. An allowable emission adjustment may not overestimate a unit's allowable emissions and must be based upon the parameters and procedures proposed in the alternate calculation method for actual emissions. The alternate calculation and recordkeeping procedures must be approved by the Department, in writing, prior to implementation.

(c) The owner or operator of a unit subject to this section shall surrender to the Department one CAIR NO_x allowance and one CAIR NO_x Ozone Season allowance, as defined in 40 CFR 96.102 and 96.302 (relating to definitions), for each ton of NO_x by which the combined actual emissions exceed the allowable emissions of the units subject to this section at a facility from May 1 through

September 30. The surrendered allowances shall be of current year vintage. For the purpose of determining the amount of allowances to surrender, any remaining fraction of a ton equal to or greater than 0.50 ton is deemed to equal 1 ton and any fraction of a ton less than 0.50 ton is deemed to equal zero tons.

(d) If the combined allowable emissions from units subject to this section at a facility from May 1 through September 30 exceed the combined actual emissions from units subject to this section at the facility during the same period, the owner or operator may deduct the difference or any portion of the difference from the amount of actual emissions from units subject to this section at the owner or operator's other facilities.

(e) By November 1, 2005, and by November 1 of each year thereafter, an owner or operator of a unit subject to this section shall surrender the required NO_x allowances to the Department's designated NO_x allowance tracking system account and provide to the Department, in writing, the following:

(1) The serial number of each NO_x allowance surrendered.

(2) The calculations used to determine the quantity of NO_x allowances required to be surrendered.

(f) If an owner or operator fails to comply with subsection (e), the owner or operator shall by December 31 surrender three NO_x allowances of the current or later year vintage for each NO_x allowance that was required to be surrendered by November 1 of that year.

(g) The surrender of NO_x allowances under subsection (f) does not affect the liability of the owner or operator of the unit for any fine, penalty or assessment, or an obligation to comply with any other remedy for the same violation, under the CAA or the act.

(1) For purposes of determining the number of days of violation, if a facility has excess emissions for the period May 1 through September 30, each day in that period (153 days) constitutes a day in violation unless the owner or operator of the unit demonstrates that a lesser number of days should be considered.

(2) Each ton of excess emissions is a separate violation.

CHAPTER 145. INTERSTATE POLLUTION TRANSPORT REDUCTION

**Subchapter A. NO_x BUDGET TRADING PROGRAM
GENERAL PROVISIONS**

§ 145.8. Transition to CAIR NO_x Trading Programs.

(a) *Allowances.* The final year for NO_x allowance allocations to be made by the Department under §§ 145.41 and 145.42 (relating to timing requirements for NO_x allowance allocations; and NO_x allowance allocations) will be 2008. Allocations in 2009 will be made in accordance with the Federal CAIR Ozone Season Trading Program, 40 CFR Part 97 (relating to Federal NO_x Budget Trading Program and CAIR NO_x and SO₂ Trading Programs). CAIR NO_x Ozone Season allowance allocations for the control period starting May 1, 2010, and for each control period thereafter, will be distributed in accordance with Subchapter D (relating to CAIR NO_x and SO₂ Trading Programs).

(b) *Termination and retirement of allowances.* NO_x allowances already allocated under this subchapter for 2009 or later are terminated and may not be used for compliance with the CAIR NO_x Annual Trading Program or the CAIR NO_x Ozone Season Trading Program, as

those terms are defined in 40 CFR 96.102 and 96.302 (relating to definitions). By January 1, 2009, the Department will permanently retire the Commonwealth's non-EGU NOx Trading Program Budget of 3,619 allowances established in § 145.40 (relating to State Trading Program budget).

(c) *Requirements replaced.* The emission limitations and monitoring requirements established in Subchapter A (relating to NOx Budget Trading Program) are replaced by the requirements in Subchapter D beginning with the May 1, 2010, control period. If the owner or operator of a NOx budget unit or CAIR NOx Ozone Season unit, as defined in 40 CFR 96.302, has failed to demonstrate compliance with § 145.54 (relating to compliance), the provisions in 40 CFR 96.354 (relating to compliance with CAIR NOx emissions limitation) shall be used to withhold CAIR NOx Ozone Season allowances, as that term is defined in 40 CFR 96.302, in calendar year 2010 and beyond. If no CAIR NOx Ozone Season allowances are provided to the unit under § 145.221 (relating to timing requirements for CAIR NOx Ozone Season allowance allocations), the owner or operator of the unit shall acquire and retire a number of CAIR NOx Ozone Season allowances as specified in 40 CFR 96.354.

(d) *Non-EGU NOx Trading Program Budget.* For units subject to the applicability requirements of § 145.4 (relating to applicability), but not subject to the CAIR NOx Ozone Season Trading Program requirements of Subchapter D, the following requirements apply:

(1) *Statewide limitation.* The sum of NOx ozone season emissions from all units subject to this subsection may not exceed the Commonwealth's non-EGU NOx Trading Program budget of 3,619 tons during any ozone season.

(2) *CAIR NOx ozone season allowances.* All units subject to this subsection shall monitor and report NOx emissions in accordance with 40 CFR Part 96, Subpart HHHH (relating to monitoring and reporting), and establish a CAIR-authorized account representative and general account, in accordance with 40 CFR Part 96, Subparts BBBB and FFFF (relating to CAIR designated representative for CAIR NOx ozone season sources; and CAIR NOx ozone season allowance tracking system), incorporated into Subchapter D by reference, for the purposes of ensuring continued compliance with the non-EGU NOx Trading Program budget limitation of paragraph (1) and of retiring CAIR NOx ozone season allowances.

(3) *CAIR NOx allowances.* All units subject to this subsection shall establish a CAIR-authorized account representative and general account in accordance with 40 CFR Part 96, Subparts BB and FF (relating to CAIR designated representative for CAIR NOx sources; and CAIR NOx allowance tracking system), incorporated into Subchapter D by reference, for the purpose of retiring CAIR NOx allowances.

(4) *Emissions below Statewide limitation.* If the total ozone season emissions from all units subject to this subsection are less than 3,438 tons of NOx, the Department's permanent retirement of allowances covers all applicable emissions and no additional account transactions are required by the units covered under this subsection.

(5) *Allowable emissions per unit.* By January 31, 2009, and by January 31 of each year thereafter, the Department will determine the allowable amount of NOx emissions for the next ozone season for each unit subject to this subsection, as follows:

Allowable emission rate X each unit's heat input

Where "Allowable emission rate" =

$$\frac{3,438 \text{ tons of NOx}}{\text{Combined heat input of all units during the most recent ozone season}}$$

(6) *Allowance surrender for excess emissions.* If the combined NOx emissions from all units subject to this subsection exceed 3,438 tons in an ozone season, then a unit whose actual emissions exceed the unit's allowable emissions for that ozone season, as determined under paragraph (5), shall surrender to the Department by April 30 of the year following the ozone season one CAIR NOx ozone season allowance and one CAIR NOx allowance for each ton of excess emissions. A unit whose excess emissions are 0.5 ton or greater of the next excess ton shall surrender 1 full ton of CAIR NOx allowances (banked or current) for that excess emission. Units under common ownership may include the allowable and actual emissions from multiple units to determine whether a unit must surrender allowances.

(7) *Surrender procedure.* To surrender allowances under paragraph (6), an owner or operator of a unit shall surrender the required CAIR NOx ozone season allowances and CAIR NOx allowances to the Department's designated NOx allowance tracking system account and provide to the Department, in writing, the following:

(i) The serial number of each allowance surrendered.

(ii) The calculations used to determine the quantity of allowances required to be surrendered.

(8) *Failure to surrender allowances.* If an owner or operator fails to comply with paragraph (6), the owner or operator shall by June 30 surrender three CAIR NOx ozone season allowances and three CAIR NOx allowances of the current or later year vintage for each ton of excess emissions as calculated under paragraph (6).

(9) *Liability not affected.* The surrender of CAIR NOx ozone season allowances and CAIR NOx allowances under paragraph (6) does not affect the liability of the owner or operator of the unit for any fine, penalty or assessment, or an obligation to comply with any other remedy for the same violation, under the CAA or the act.

(i) For purposes of determining the number of days of violation, if a facility has excess emissions for the period May 1 through September 30, each day in that period (153 days) constitutes a day in violation unless the owner or operator of the unit demonstrates that a lesser number of days should be considered.

(ii) Each ton of excess emissions is a separate violation.

(10) *Allowance retirement.* The Department will permanently retire to the Department's CAIR NOx retirement account the allowances surrendered under paragraphs (6)–(9).

(11) *Actual emissions below allowable emissions.* If a facility's allowable emissions exceed the facility's actual emissions for an ozone season, the owner or operator may deduct the difference or any portion of the difference from the actual emissions of units under the facility's common control that are subject to §§ 129.201–129.203 (relating

to boilers; stationary combustion turbines; and stationary internal combustion engines).

(12) *Corrections.* One hundred and eighty-one tons of allowable NOx emissions are available to the Department annually for accounting corrections.

Subchapter B. EMISSIONS OF NOx FROM STATIONARY INTERNAL COMBUSTION ENGINES

§ 145.113. Standard requirements.

* * * * *

(d) The owner or operator of a unit subject to this section shall surrender to the Department one CAIR NOx allowance and one CAIR NOx ozone season allowance, as defined in 40 CFR 96.102 and 96.302 (relating to definitions), for each ton of NOx by which the combined actual emissions exceed the allowable emissions of the units subject to this section at a facility from May 1 through September 30. The surrendered allowances shall be of current year vintage. For the purposes of determining the amount of allowances to surrender, any remaining fraction of a ton equal to or greater than 0.50 ton is deemed to equal 1 ton and any fraction of a ton less than 0.50 ton is deemed to equal zero tons.

* * * * *

Subchapter C. EMISSIONS OF NOx FROM CEMENT MANUFACTURING

§ 145.143. Standard requirements.

(a) By October 31, 2005, and each year thereafter, the owner or operator of a Portland cement kiln shall calculate the difference between the actual emissions from the unit during the period from May 1 through September 30 and the allowable emissions for that period.

(b) The owner or operator shall determine allowable emissions by multiplying the tons of clinker produced by the Portland cement kiln for the period by 6 pounds per ton of clinker produced.

(c) The owner or operator shall install and operate a CEMS, and shall report CEMS emissions data, in accordance with the CEMS requirements of either Chapter 139 or 145 (relating to sampling and testing; and interstate pollution transport reduction) and calculate actual emissions using the CEMS data reported to the Department. Any data invalidated under Chapter 139 shall be substituted with data calculated using the potential emission rate for the unit or, if approved by the Department in writing, an alternative amount of emissions that is more representative of actual emissions that occurred during the period of invalid data.

(d) The owner or operator of a Portland cement kiln subject to this section shall surrender to the Department one CAIR NOx allowance and one CAIR NOx ozone season allowance, as defined in 40 CFR 96.102 and 96.302 (relating to definitions), for each ton of NOx by which the combined actual emissions exceed the allowable emissions of the Portland cement kilns subject to this section at a facility from May 1 through September 30. The surrendered allowances shall be of current year vintage. For the purposes of determining the amount of allowances to surrender, any remaining fraction of a ton equal to or greater than 0.50 ton is deemed to equal 1 ton and any fraction of a ton less than 0.50 ton is deemed to equal zero tons.

(e) If the combined allowable emissions from Portland cement kilns at a facility from May 1 through September 30 exceed the combined actual emissions from Portland cement kilns subject to this section at the facility during

the same period, the owner or operator may deduct the difference or any portion of the difference from the amount of actual emissions from Portland cement kilns at the owner or operator's other facilities located in this Commonwealth for that period.

(f) By November 1, 2005, and each year thereafter, an owner or operator subject to this subchapter shall surrender the required NOx allowances to the Department's designated NOx allowance tracking system account, as defined in § 121.1 (relating to definitions), and shall provide in writing to the Department, the following:

(1) The serial number of each NOx allowance surrendered.

(2) The calculations used to determine the quantity of NOx allowances required to be surrendered.

(g) If an owner or operator fails to comply with subsection (f), the owner or operator shall by December 31 surrender three NOx allowances of the current or later year vintage for each NOx allowance that was required to be surrendered by November 1.

(h) The surrender of NOx allowances under subsection (g) does not affect the liability of the owner or operator of the Portland cement kiln for any fine, penalty or assessment, or an obligation to comply with any other remedy for the same violation, under the CAA or the act.

(1) For purposes of determining the number of days of violation, if a facility has excess emissions for the period May 1 through September 30, each day in that period (153 days) constitutes a day in violation unless the owner or operator of the Portland cement kiln demonstrates that a lesser number of days should be considered.

(2) Each ton of excess emissions is a separate violation.

Subchapter D. CAIR NOx AND SO₂ TRADING PROGRAMS

GENERAL PROVISIONS

- 145.201. Purpose.
- 145.202. Definitions.
- 145.203. Applicability.
- 145.204. Incorporation of Federal regulations by reference.

ADDITIONAL REQUIREMENTS FOR CHAPTER 127 EMISSION REDUCTION CREDIT PROVISIONS

- 145.205. Emission reduction credit provisions.

ADDITIONAL REQUIREMENTS FOR CAIR NOx ANNUAL TRADING PROGRAM

- 145.211. Timing requirements for CAIR NOx allowance allocations.
- 145.212. CAIR NOx allowance allocations.
- 145.213. Supplemental monitoring, recordkeeping and reporting requirements for gross electrical output and useful thermal energy for units subject to 40 CFR 96.170—96.175.

ADDITIONAL REQUIREMENTS FOR CAIR NOx OZONE SEASON TRADING PROGRAM

- 145.221. Timing requirements for CAIR NOx ozone season allowance allocations.
- 145.222. CAIR NOx ozone season allowance allocations.
- 145.223. Supplemental monitoring, recordkeeping and reporting requirements for gross electrical output and useful thermal energy for units subject to 40 CFR 96.370—96.375.

GENERAL PROVISIONS

§ 145.201. Purpose.

This subchapter incorporates by reference the CAIR NOx Annual Trading Program and CAIR NOx Ozone Season Trading Program as a means of mitigating the interstate transport of fine particulates and NOx, and the CAIR SO₂ Trading Program as a means of mitigating the interstate transport of fine particulates and SO₂. This subchapter also establishes general provisions and the

applicability, allowance and supplemental monitoring, recordkeeping and reporting provisions.

§ 145.202. Definitions.

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

Demand side management—The management of customer consumption of electricity or the demand for electricity through the implementation of any of the following:

(i) Energy efficiency technologies, management practices or other strategies in residential, commercial, institutional or government customers that reduce electricity consumption by those customers.

(ii) Load management or demand response technologies, management practices or other strategies in residential, commercial, industrial, institutional and government customers that shift electric load from periods of higher demand to periods of lower demand.

(iii) Industrial by-product technologies consisting of the use of a by-product from an industrial process, including the reuse of energy from exhaust gases or other manufacturing by-products that are used in the direct production of electricity at the facility of a customer.

Demand side management energy efficiency qualifying resource—A demand side management energy efficiency measure that has no associated NOx emissions and that generates certified alternative energy credit.

EIA—The Energy Information Administration of the United States Department of Energy or its successor.

MWh-Megawatt-hour—One million watt-hours.

Pennsylvania Alternative Energy Portfolio Standard—An applicable standard promulgated under the Alternative Energy Portfolio Standards Act (73 P. S. §§ 1648.1—1648.8).

Renewable energy—

(i) Renewable energy generated by one or more of the following fuels, energy resources or technologies, and that does not emit NOx or SO₂:

- (A) Solar photovoltaic or solar thermal energy.
- (B) Wind energy.
- (C) Fuel cells that do not employ a fuel processor that emits NOx.
- (D) Ocean thermal, wave or tidal energy.
- (E) Low-impact hydro energy.
- (F) Geothermal energy.

(ii) The term does not include energy generated from nuclear fuel, biomass, landfill gas, fuel cells that employ a fuel processor that emits NOx, or hydro using pumped storage.

Renewable energy certificate—The tradable alternative energy credit instrument generated under, and used to establish, verify and monitor compliance with, the Pennsylvania Alternative Energy Portfolio Standard. A unit of credit shall equal 1 megawatt-hour of electricity from an alternative energy source.

Renewable energy qualifying resource—A renewable energy measure that generates renewable energy certificates.

§ 145.203. Applicability.

This subchapter applies to CAIR NOx units, CAIR NOx ozone season units and CAIR SO₂ units.

§ 145.204. Incorporation of Federal regulations by reference.

(a) Except as otherwise specified in this subchapter, the provisions of the CAIR NOx Annual Trading Program, found in 40 CFR Part 96 (relating to NOx budget trading program and CAIR NOx and SO₂ trading programs for State implementation plans), including all appendices, future amendments and supplements thereto, are incorporated by reference.

(b) Except as otherwise specified in this subchapter, the provisions of the CAIR SO₂ Trading Program, found in 40 CFR Part 96, including all appendices, future amendments and supplements thereto, are incorporated by reference.

(c) Except as otherwise specified in this subchapter, the provisions of the CAIR NOx Ozone Season Trading Program, found in 40 CFR Part 96, including all appendices, future amendments and supplements thereto, are incorporated by reference.

(d) In the event of a conflict between Federal regulatory provisions incorporated by reference in this subchapter and Pennsylvania regulatory provisions, the provision expressly set out in this subchapter shall be followed unless the Federal provision is more stringent. Federal regulations that are cited in this subchapter or that are cross-referenced in the Federal regulations incorporated by reference include any Pennsylvania modifications made to those Federal regulations.

ADDITIONAL REQUIREMENTS FOR CHAPTER 127 EMISSION REDUCTION CREDIT PROVISIONS

§ 145.205. Emission reduction credit provisions.

The following conditions shall be satisfied in order for the Department to issue a permit or plan approval to the owner or operator of a unit not subject to this subchapter that is relying on emissions reduction credits (ERCs) or creditable emissions reductions in an applicability determination under Chapter 127, Subchapter E (relating to new source review), or is seeking to enter into an emissions trade authorized under Chapter 127 (relating to construction, modification, reactivation and operation of sources), if the ERCs or creditable emission reductions were, or will be, generated by a unit subject to this subchapter.

(1) Prior to issuing the permit or plan approval, the Department will permanently reduce the Commonwealth's CAIR NOx trading budget or CAIR NOx Ozone Season Trading Budget, or both, as applicable, beginning with the sixth control period following the date the plan approval or permit to commence operations or increase emissions is issued. The Department will permanently reduce the applicable CAIR NOx budgets by an amount of allowances equal to the ERCs or creditable emission reductions relied upon in the applicability determination for the non-CAIR unit subject to Chapter 127, Subchapter E or in the amount equal to the emissions trade authorized under Chapter 127, as if these emissions had already been emitted.

(2) The permit or plan approval must prohibit the owner or operator from commencing operation or increasing emissions until the owner or operator of the CAIR unit generating the ERC or creditable emission reduction surrenders to the Department an amount of allowances

equal to the ERCs or emission reduction credits relied upon in the applicability determination for the non-CAIR unit under Chapter 127, Subchapter E or the amount equal to the ERC trade authorized under Chapter 127, for each of the five consecutive control periods following the date the non-CAIR unit commences operation or increases emissions. The allowances surrendered must be of present or past vintage years.

ADDITIONAL REQUIREMENTS FOR CAIR NO_x ANNUAL TRADING PROGRAM

§ 145.211. Timing requirements for CAIR NO_x allowance allocations.

(a) *Provisions not incorporated by reference.* The requirements of 40 CFR 96.141 (relating to timing requirements for CAIR NO_x allowance allocations) are not incorporated by reference. Instead of 40 CFR 96.141, the requirements set forth in this section apply.

(b) *Regular allocations.* The Department will make regular allocations of CAIR NO_x allowances as follows:

(1) Except for allocations made under subsection (c), by April 30, 2008, the Department will submit to the Administrator the CAIR NO_x allowance allocations made in accordance with § 145.212 (relating to CAIR NO_x allowance allocations) for the control periods in 2010-2012 in a format prescribed by the Administrator.

(2) Except for allocations made under subsection (c), by April 30, 2009, the Department will submit to the Administrator the CAIR NO_x allowance allocations made in accordance with § 145.212 for the control period in 2013 in a format prescribed by the Administrator. By April 30 every year after 2009, the Department will submit the allocations for the next consecutive control period.

(3) The Department will reserve 1.3% of the CAIR NO_x Trading Budget for each annual control period for allocation to units as provided under § 145.212(f)(2).

(c) *New CAIR NO_x unit allowance allocations.* By April 30, 2011, and by April 30 every year thereafter, the Department will submit to the Administrator the CAIR NO_x allowance allocations made in accordance with § 145.212(e). The Department will base the allocations on actual emissions in the calendar year preceding the year of the submission.

(d) *Publication.* The Department will publish notice of the proposed CAIR NO_x allowance allocations in the *Pennsylvania Bulletin* and will publish the final allocations after a 15-day public comment period. The Department will include in the notice the name and telephone number of a person to contact for access to additional information. The Department will publish notice according to the following schedule:

(1) For allocations made under subsection (b)(1), by April 1, 2008.

(2) For allocations made under subsection (b)(2), by April 1, 2009, and by April 1 every year thereafter.

(3) For allocations made under subsection (c), by March 1 each year, beginning in 2011.

(e) *Order of budget allowance withdrawal.* The Department will issue CAIR NO_x allowances from the CAIR NO_x Trading Budget established in 40 CFR 96.140 (relating to State trading budgets) in the following order:

(1) To new units under § 145.212(e).

(2) To units under § 145.212(f)(2).

(3) To units under § 145.212(c).

§ 145.212. CAIR NO_x allowance allocations.

(a) *Provisions not incorporated by reference.* The requirements of 40 CFR 96.142 (relating to CAIR NO_x allowance allocations) are not incorporated by reference. Instead of 40 CFR 96.142, the requirements in this section apply.

(b) *Baseline heat input.* Baseline heat input for each CAIR NO_x unit will be converted as follows:

(1) A unit's control period heat input and a unit's status as coal-fired or oil-fired for a calendar year under this paragraph will be determined in one of the following two ways:

(i) In accordance with 40 CFR Part 75 (relating to continuous emission monitoring), to the extent that the unit was otherwise subject to 40 CFR Part 75 for the year.

(ii) Based on the best available data reported to the Department for the unit, to the extent the unit was not otherwise subject to the requirements of 40 CFR Part 75 for the year.

(2) Except as provided in subparagraphs (iv) and (v), a unit's converted control period heat input for a calendar year shall be determined as follows:

(i) The control period gross electrical output of the generators served by the unit multiplied by 7,900 Btu/kWh if the unit is coal-fired for the year, and divided by 1,000,000 Btu/mmBtu.

(ii) The control period gross electrical output of the generators served by the unit multiplied by 6,675 Btu/kWh if the unit is not coal-fired for the year, and divided by 1,000,000 Btu/mmBtu.

(iii) If a generator is served by two or more units, the gross electrical output of the generator will be attributed to each unit in proportion to the share of the total control period heat input from each of the units for the year.

(iv) For a unit that is a boiler and has equipment used to produce electricity and useful thermal energy for industrial, commercial, heating or cooling purposes through the sequential use of energy, the total heat energy (in Btus) of the steam produced by the boiler during the annual control period, divided by 0.8 and by 1,000,000 Btu/mmBtu.

(v) For a unit that is a combustion turbine and has equipment used to produce electricity and useful thermal energy for industrial, commercial, heating or cooling purposes through the sequential use of energy, the annual control period gross electrical output of the enclosed device comprising the compressor, combustor and turbine multiplied by 3,413 Btu/kWh, plus the total heat energy (in Btu) of the steam produced by any associated heat recovery steam generator during the annual control period divided by 0.8, and with the sum divided by 1,000,000 Btu/mmBtu.

(vi) Calculations will be based on the best output data available on or before January 31 of the year the allocations are published. If unit level electrical or steam

output data are not available from EIA, or submitted by this date by the owner or operator of the CAIR NO_x unit, then heat input data for the period multiplied by 0.25 and converted to MWh will be used to determine total output.

(c) *Existing unit, new unit and subsection (f)(1) qualifying resource allocation baseline.* For each control period beginning with January 1, 2010, and each year thereafter, the Department will allocate to qualifying resources and CAIR NO_x units, including CAIR NO_x units issued allowances under subsection (e), a total amount of CAIR NO_x allowances equal to the number of CAIR NO_x allowances remaining in the Commonwealth's CAIR NO_x trading budget under 40 CFR 96.140 (relating to State trading budgets) for those control periods using summed baseline heat input data as determined under subsections (b) and (f)(1) from a baseline year that is 6 calendar years before the control period.

(d) *Proration of allowance allocations.* The Department will allocate CAIR NO_x allowances to each existing CAIR NO_x unit and qualifying resource in an amount determined by multiplying the amount of CAIR NO_x allowances in the Commonwealth's CAIR NO_x trading budget available for allocation under subsection (c) by the ratio of the baseline heat input of the existing CAIR NO_x unit or qualifying resource to the sum of the baseline heat input of existing CAIR NO_x units and of the qualifying resources, rounding to the nearest whole allowance as appropriate.

(e) *Allocations to new CAIR NO_x units.* By March 31, 2011, and March 31 each year thereafter, the Department will allocate CAIR NO_x allowances under § 145.211(c) (relating to timing requirements for CAIR NO_x allowance allocations) to CAIR NO_x units equal to the previous year's emissions at each unit, unless the unit has been issued allowances of the previous year's vintage in a regular allocation under § 145.211(b). The Department will allocate CAIR NO_x allowances under this subsection of a vintage year that is 5 years later than the year in which the emissions were generated. The number of CAIR NO_x allowances allocated may not exceed the actual emission of the year preceding the year in which the Department makes the allocation. The allocation of these allowances to the new unit will not reduce the number of allowances the unit is entitled to receive under another provision of this subchapter.

(f) *Allocations to qualifying resources and units exempted by section 405(g)(6)(a) of the Clean Air Act.* For each control period beginning with 2010 and thereafter, the Department will allocate CAIR NO_x allowances to qualifying resources under paragraph (1) in this Commonwealth that are not also allocated CAIR NO_x allowances under another provision of this subchapter and to existing units under paragraph (2) that were exempted at any time under section 405(g)(6)(a) of the Clean Air Act (42 U.S.C.A. § 7651d(g)(6)(A)), regarding phase II SO₂ requirements, and that commenced operation prior to January 1, 2000, but did not receive an allocation of SO₂ allowances under the EPA's Acid Rain Program, as follows:

(1) The Department will allocate CAIR NO_x allowances to a renewable energy qualifying resource or demand side management energy efficiency qualifying resource in accordance with subsections (c) and (d) upon receipt by the Department of an application, in writing, on or before June 30 of the year following the control period, except for vintage year 2011 and 2012 NO_x allowance allocations whose application deadline will be prescribed by the Department, meeting the requirements of this paragraph.

The number of allowances allocated to the qualifying resource will be determined by converting the certified quantity of electric energy production, useful thermal energy, and energy equivalent value of the measures approved under the Pennsylvania Alternative Energy Portfolio Standard to equivalent thermal energy. Equivalent thermal energy is a unit's baseline heat input for allocation purposes. The conversion rate for converting electrical energy to equivalent thermal energy is 3,413 Btu/kWh. To receive allowances under this subsection, the qualifying resource must have commenced operation after January 1, 2005, must be located in this Commonwealth and may not be a CAIR NO_x unit. The following procedures apply:

(i) The owner of a qualifying renewable energy resource shall appoint a CAIR-authorized account representative and file a certificate of representation with the EPA and the Department.

(ii) The Department will transfer the allowances into an account designated by the owner's CAIR-authorized account representative of the qualifying resource, or into an account designated by an aggregator approved by the Pennsylvania Public Utility Commission or its designee.

(iii) The applicant shall provide the Department with the corresponding renewable energy certificate serial numbers.

(iv) At least one whole allowance must be generated per owner, operator or aggregator for an allowance to be issued.

(2) The Department will allocate CAIR NO_x allowances to the owner or operator of a CAIR SO₂ unit that commenced operation prior to January 1, 2000, that has not received an SO₂ allocation for that compliance period, as follows:

(i) By January 31, 2011, and each year thereafter, the owner or operator of a unit may apply, in writing, to the Department under this subsection to receive extra CAIR NO_x allowances.

(ii) The owner or operator may request under this subparagraph one CAIR NO_x allowance for every 8 tons of SO₂ emitted from a qualifying unit during the preceding control period. An owner or operator of a unit covered under this subparagraph that has opted into the Acid Rain Program may request one CAIR NO_x allowance for every 8 tons of SO₂ emissions that have not been covered by the SO₂ allowances received as a result of opting into the Acid Rain Program.

(iii) If the original CAIR NO_x allowance allocation for the unit for the control period exceeded the unit's actual emissions of NO_x for the control period, the owner or operator shall also deduct the excess CAIR NO_x allowances from the unit's request under subparagraph (ii). This amount is the unit's adjusted allocation and will be allocated unless the proration described in subparagraph (iv) applies.

(iv) The Department will make any necessary corrections and then sum the requests. If the total number of NO_x allowances requested by all qualified units under this paragraph, as adjusted by subparagraph (iii), is less than 1.3% of the Commonwealth's CAIR NO_x Trading Budget, the Department will allocate the corrected amounts. If the total number of NO_x allowances requested by all qualified units under this paragraph

exceeds 1.3% of the Commonwealth's CAIR NOx Trading Budget, the Department will prorate the allocations based upon the following equation:

$$A_A = [E_A \times (0.013 \times B_{NA})] / T_{RA}$$

where,

A_A is the unit's prorated allocation,

E_A is the adjusted allocation the unit may request under subparagraph (iii),

B_{NA} is the total number of CAIR NOx allowances in the Commonwealth's CAIR NOx Trading Budget,

T_{RA} is the total number of CAIR NOx allowances requested by all units requesting allowances under this paragraph.

(3) The Department will review each CAIR NOx allowance allocation request under this subsection and will allocate CAIR NOx allowances for each control period under a request as follows:

(i) The Department will accept an allowance allocation request only if the request meets, or is adjusted by the Department as necessary to meet, the requirements of this section.

(ii) On or after January 1 of the year of allocation, the Department will determine the sum of the CAIR NOx allowances requested.

(4) Up to 1.3% of the Commonwealth's CAIR NOx trading budget is available for allocation in each allocation cycle from 2011-2016 to allocate 2010-2015 allowances for the purpose of offsetting SO₂ emissions from units described in paragraph (2). Beginning January 1, 2017, and for each allocation cycle thereafter, the units will no longer be allocated CAIR NOx allowances under paragraph (2). Any allowances remaining after this allocation will be allocated to units under § 145.212(c) during the next allocation cycle.

(5) Notwithstanding the provisions of paragraphs (2)—(4), the Department may extend, terminate or otherwise modify the allocation of NOx allowances made available under this subsection for units exempted under section 405(g)(6)(a) of the Clean Air Act after providing notice in the *Pennsylvania Bulletin* and at least a 30-day public comment period.

(g) The Department will correct any errors in allocations made by the Department and discovered after final allocations are made but before the next allocation cycle, in the subsequent allocation cycle using future allowances that have not yet been allocated.

§ 145.213. Supplemental monitoring, recordkeeping and reporting requirements for gross electrical output and useful thermal energy for units subject to 40 CFR 96.170—96.175.

(a) By January 1, 2009, or by the date of commencing commercial operation, whichever is later, the owner or operator of the CAIR NOx unit shall install, calibrate, maintain and operate a wattmeter, measure gross electrical output in megawatt-hours on a continuous basis and record the output of the wattmeter. If a generator is served by two or more units, the information to determine the heat input of each unit for that control period shall also be recorded, so as to allow each unit's share of the gross electrical output to be determined. If heat input data are used, the owner or operator shall comply with the applicable provisions of 40 CFR Part 75 (relating to continuous emission monitoring).

(b) By September 1, 2008, for a CAIR NOx unit that is a cogeneration unit, and for a CAIR NOx unit with cogeneration capabilities, the owner or operator shall install, calibrate, maintain and operate meters for steam flow in lbs/hr, temperature in degrees Fahrenheit, and pressure in PSI, to measure and record the useful thermal energy that is produced, in mmBtu/hr, on a continuous basis. The owner or operator of a CAIR NOx unit that produces useful thermal energy but uses an energy transfer medium other than steam, such as hot water or glycol, shall install, calibrate, maintain and operate the necessary meters to measure and record the data necessary to express the useful thermal energy produced, in mmBtu/hr, on a continuous basis. If the unit ceases to produce useful thermal energy, the owner or operator may cease operation of the meters, but operation of the meters shall be resumed if the unit resumes production of useful thermal energy.

(c) Beginning with 2009, the designated representative of the unit shall submit to the Department an annual report showing monthly gross electrical output and monthly useful thermal energy from the unit. The report is due by January 31 for the preceding calendar year.

(d) The owner or operator of a CAIR NOx unit shall maintain onsite the monitoring plan detailing the monitoring system and maintenance of the monitoring system, including quality assurance activities. The owner or operator of a CAIR NOx unit shall retain the monitoring plan for at least 5 years from the date that it is replaced by a new or revised monitoring plan. The owner or operator of a CAIR NOx unit shall provide the Department with a written copy of the monitoring plan by January 1, 2009, and thereafter within 3 calendar months of making updates to the plan.

(e) The owner or operator of a CAIR NOx unit shall retain records for at least 5 years from the date the record is created or the data collected as required by subsections (a) and (b), and the reports submitted to the Department and the EPA in accordance with subsections (c) and (d).

ADDITIONAL REQUIREMENTS FOR CAIR NOx OZONE SEASON TRADING PROGRAM

§ 145.221. Timing requirements for CAIR NOx ozone season allowance allocations.

(a) *Provisions not incorporated by reference.* The requirements of 40 CFR 96.341 (relating to timing requirements for CAIR NOx ozone season allowance allocations) are not incorporated by reference. Instead of 40 CFR 96.341, the requirements in this section apply.

(b) *Regular allocations.* The Department will make regular allocations of CAIR NOx ozone season allowances as follows:

(1) Except for allocations made under subsection (c), by April 30, 2008, the Department will submit to the Administrator the CAIR NOx ozone season allowance allocations made in accordance with § 145.222 (relating to CAIR NOx ozone season allowance allocations) for the control periods in 2010-2012 in a format prescribed by the Administrator.

(2) Except for allocations made under subsection (c), by April 30, 2009, the Department will submit to the Administrator the CAIR NOx ozone season allowance allocations made in accordance with § 145.222 for the control period in 2013 in a format prescribed by the Administrator. By April 30 every year after 2009, the Department will submit the allocations for the next consecutive control period.

(c) *New CAIR NOx unit allowance allocations.* By April 30, 2011, and by April 30 every year thereafter, the Department will submit to the Administrator the CAIR NOx Ozone Season allowance allocations made in accordance with § 145.222(e). The Department will base the allocations on actual emissions in the ozone season in the calendar year preceding the year of the submission.

(d) *Publication.* The Department will publish notice of the proposed CAIR NOx Ozone Season allowance allocations in the *Pennsylvania Bulletin* and will publish the final allocations after a 15-day public comment period. The Department will include in the notice the name and telephone number of a person to contact for access to additional information. The Department will publish notice according to the following schedule:

(1) For allocations made under subsection (b)(1), by April 1, 2008.

(2) For allocations made under subsection (b)(2), by April 1, 2009, and by April 1 every year thereafter.

(3) For allocations made under subsection (c), by March 1 each year, beginning in 2011.

(e) *Order of budget allowance withdrawal.* The Department will issue CAIR NOx ozone season allowances from the CAIR NOx ozone season Trading Budget established in 40 CFR 96.240 (relating to State trading budgets) in the following order:

(1) To new units under § 145.222(e).

(2) To units under § 145.222(c).

§ 145.222. CAIR NOx Ozone Season allowance allocations.

(a) *Provisions not incorporated by reference.* The requirements of 40 CFR 96.342 (relating to CAIR NOx ozone season allowance allocations) are not incorporated by reference. Instead of 40 CFR 96.342, the requirements in this section apply.

(b) *Baseline heat input.* Baseline heat input for each CAIR NOx ozone season unit will be converted as follows:

(1) A unit's control period heat input and a unit's status as coal-fired or oil-fired for the ozone season portion of a calendar year under this paragraph will be determined in one of the following two ways:

(i) In accordance with 40 CFR Part 75 (relating to continuous emission monitoring), to the extent that the unit was otherwise subject to the requirements of 40 CFR Part 75 for the control period.

(ii) Based on the best available data reported to the Department for the unit, to the extent the unit was not otherwise subject to the requirements of 40 CFR Part 75 for the year.

(2) Except as provided in subparagraphs (iv) and (v), a unit's converted control period heat input for the ozone season portion of a calendar year shall be determined as follows:

(i) The control period gross electrical output of the generators served by the unit multiplied by 7,900 Btu/kWh if the unit is coal-fired for the ozone season control period, and divided by 1,000,000 Btu/mmBtu.

(ii) The control period gross electrical output of the generators served by the unit multiplied by 6,675 Btu/kWh if the unit is not coal-fired for the ozone season control period, and divided by 1,000,000 Btu/mmBtu.

(iii) If a generator is served by 2 or more units, the gross electrical output of the generator will be attributed

to each unit in proportion to the share of the total control period heat input from each of the units for the ozone season control period.

(iv) For a unit that is a boiler and has equipment used to produce electricity and useful thermal energy for industrial, commercial, heating or cooling purposes through the sequential use of energy, the total heat energy (in Btus) of the steam produced by the boiler during the ozone season control period, divided by 0.8 and by 1,000,000 Btu/mmBtu.

(v) For a unit that is a combustion turbine and has equipment used to produce electricity and useful thermal energy for industrial, commercial, heating or cooling purposes through the sequential use of energy, the control period gross electrical output of the enclosed device comprising the compressor, combustor and turbine multiplied by 3,413 Btu/kWh, plus the total heat energy (in Btu) of the steam produced by any associated heat recovery steam generator during the ozone season control period divided by 0.8, and with the sum divided by 1,000,000 Btu/mmBtu.

(vi) Calculations will be based on the best output data available on or before January 31 of the year the allocations are published. If unit level electrical or steam output data are not available from EIA, or submitted by this date by the owner or operator of the CAIR NOx Ozone Season unit, then heat input data for the period multiplied by 0.25 and converted to MWh will be used to determine total output.

(c) *Existing unit, new unit and subsection (f)(1) qualifying resource allocation baseline.* For each control period beginning with the 2010 control period and thereafter, the Department will allocate to qualifying resources and CAIR NOx ozone season units, including CAIR NOx ozone season units issued allowances under subsection (e), a total amount of CAIR NOx ozone season allowances equal to the number of CAIR NOx ozone season allowances remaining in the Commonwealth's CAIR NOx Ozone Season Trading Budget under 40 CFR 96.140 (relating to State trading budgets) for those control periods using summed baseline heat input data as determined under subsections (b) and (f)(1) from an ozone season control period in a baseline year that is 6 calendar years before the control period.

(d) *Proration of allowance allocations.* The Department will allocate CAIR NOx ozone season allowances to each existing CAIR NOx ozone season unit and qualifying resource in an amount determined by multiplying the amount of CAIR NOx ozone season allowances in the Commonwealth's CAIR NOx ozone season Trading Budget available for allocation under subsection (c) by the ratio of the baseline heat input of the existing CAIR NOx ozone season unit or qualifying resource to the sums of the baseline heat input of existing CAIR NOx ozone season units and of the qualifying resources, rounding to the nearest whole allowance as appropriate.

(e) *Allocations to new CAIR NOx ozone season units.* By March 31, 2011, and March 31 each year thereafter, the Department will allocate CAIR NOx ozone season allowances under § 145.221(c) (relating to timing requirements for CAIR NOx ozone season allowance allocations) to CAIR NOx ozone season units equal to the previous year's emissions at each unit, unless the unit has been issued allowances of the previous year's vintage in a regular allocation under § 145.221(b). The Department will allocate CAIR NOx allowances under this subsection of a vintage year that is 5 years later than the year in

which the emissions were generated. The number of CAIR NOx ozone season allowances allocated shall not exceed the actual emission of the year preceding the year in which the Department makes the allocation. The allocation of these allowances to the new unit will not reduce the number of allowances the unit is entitled to receive under another provision of this subchapter.

(f) *Allocations to qualifying resources.* For each control period beginning with the 2010 control period, and thereafter, the Department will allocate CAIR NOx ozone season allowances to qualifying resources in this Commonwealth that are not also allocated CAIR NOx ozone season allowances under another provision of this subchapter, as follows:

(1) The Department will allocate CAIR NOx ozone season allowances to a renewable energy qualifying resource or demand side management energy efficiency qualifying resource in accordance with subsections (c) and (d) upon receipt by the Department of an application, in writing, on or before June 30 of the year following the control period, except for vintage year 2011 and 2012 NOx ozone season allowance allocations whose application deadline will be prescribed by the Department, meeting the requirements of this paragraph. The number of allowances allocated to the qualifying resource will be determined by converting the certified quantity of electric energy production, useful thermal energy, and energy equivalent value of the measures approved under the Pennsylvania Alternative Energy Portfolio Standard to equivalent thermal energy. Equivalent thermal energy is a unit's baseline heat input for allocation purposes. The conversion rate for converting electrical energy to equivalent thermal energy is 3,413 Btu/kWh. To receive allowances under this subsection, the qualifying resource must have commenced operation after January 1, 2005, must be located in this Commonwealth and may not be a CAIR NOx ozone season unit. The following procedures apply:

(i) The owner of a qualifying renewable energy resource shall appoint a CAIR-authorized account representative and file a certificate of representation with the EPA and the Department.

(ii) The Department will transfer the allowances into an account designated by the owner's CAIR-authorized account representative of the qualifying resource, or into an account designated by an aggregator approved by the Pennsylvania Public Utility Commission or its designee.

(iii) The applicant shall provide the Department with the corresponding renewable energy certificate serial numbers.

(iv) At least one whole allowance must be generated per owner, operator or aggregator for an allowance to be issued.

(g) The Department will correct any errors in allocations made by the Department and discovered after final allocations are made but before the next allocation cycle, in the subsequent allocation cycle using future allowances that have not yet been allocated.

§ 145.223. Supplemental monitoring, recordkeeping and reporting requirements for gross electrical output and useful thermal energy for units subject to 40 CFR 96.370—96.375.

(a) By January 1, 2009, or by the date of commencing commercial operation, whichever is later, the owner or operator of the CAIR NOx ozone season unit shall install, calibrate, maintain and operate a wattmeter, measure gross electrical output in megawatt-hours on a continuous

basis and record the output of the wattmeter. If a generator is served by two or more units, the information to determine the heat input of each unit for that control period shall also be recorded, so as to allow each unit's share of the gross electrical output to be determined. If heat input data are used, the owner or operator shall comply with the applicable provisions of 40 CFR Part 75 (relating to continuous emission monitoring).

(b) By September 1, 2008, for a CAIR NOx ozone season unit that is a cogeneration unit, and for a CAIR NOx ozone season unit with cogeneration capabilities, the owner or operator shall install, calibrate, maintain and operate meters for steam flow in lbs/hr, temperature in degrees Fahrenheit and pressure in PSI, to measure and record the useful thermal energy that is produced, in mmBtu/hr, on a continuous basis. The owner or operator of a CAIR NOx ozone season unit that produces useful thermal energy but uses an energy transfer medium other than steam, such as hot water or glycol, shall install, calibrate, maintain and operate the necessary meters to measure and record the data necessary to express the useful thermal energy produced, in mmBtu/hr, on a continuous basis. If the unit ceases to produce useful thermal energy, the owner or operator may cease operation of the meters, but operation of the meters shall be resumed if the unit resumes production of useful thermal energy.

(c) Beginning with 2009, the designated representative of the unit shall submit to the Department an annual report showing monthly gross electrical output and monthly useful thermal energy from the unit. The report is due by January 31 for the preceding calendar year.

(d) The owner or operator of a CAIR NOx ozone season unit shall maintain onsite the monitoring plan detailing the monitoring system and maintenance of the monitoring system, including quality assurance activities. The owner or operator of a CAIR NOx ozone season unit shall retain the monitoring plan for at least 5 years from the date that it is replaced by a new or revised monitoring plan. The owner or operator of a CAIR NOx ozone season unit shall provide the Department with a written copy of the monitoring plan by January 1, 2009, and thereafter within 3 calendar months of making updates to the plan.

(e) The owner or operator of a CAIR NOx ozone season unit shall retain records for at least 5 years from the date the record is created or the data collected as required by subsections (a) and (b), and the reports submitted to the Department and the EPA in accordance with subsections (c) and (d).

[Pa.B. Doc. No. 08-667. Filed for public inspection April 11, 2008, 9:00 a.m.]

Title 58—RECREATION

FISH AND BOAT COMMISSION

[58 PA. CODE CH. 91]

Boating

The Fish and Boat Commission (Commission) amends Chapter 91 (relating to general provisions). The Commission is publishing this final-form rulemaking under the authority of 30 Pa.C.S. (relating to the Fish and Boat Code) (code). The final-form rulemaking amends the regulations regarding Boating Safety Education Certificates and the criteria for courses in boating safety education.

A. *Effective Date*

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

B. *Contact Person*

For further information on the final-form rulemaking, contact Laurie E. Shepler, Esq., P. O. Box 67000, Harrisburg, PA 17106-7000, (717) 705-7810. This final-form rulemaking is available on the Commission's web site at www.fish.state.pa.us.

C. *Statutory Authority*

The amendments to §§ 91.6 and 91.7 (relating to Boating Safety Education Certificates; and criteria for courses of instruction in boating safety education) are published under the statutory authority of section 5103 of the code (relating to boating education programs).

D. *Purpose and Background*

The final-form rulemaking is designed to improve, enhance and update the Commission's regulations pertaining to boating education. The specific purpose of the amendments is described in more detail under the summary of changes.

E. *Summary of Changes*

The act of December 9, 2002, (P. L. 1542, No. 199) (act) amended 30 Pa.C.S. § 5103 to provide for mandatory boater education. The act established a requirement for persons born after January 1, 1982, and operating a boat powered by a motor in excess of 25 horsepower to obtain and carry a certificate of boating safety education. The act also required the Commission to promulgate regulations that establish criteria for a course of instruction in boating safety education. The Commission subsequently amended its regulation in § 91.6 to describe more fully what constitutes a Boating Safety Education Certificate and distinguished between residents and nonresidents. The Commission also adopted a new regulation in § 91.7 that authorized the Executive Director to designate, by notice, organizations that offer safety education courses that are acceptable for residents, nonresidents or both. The section further provided that to be approved by the Commission, a course of instruction in boating safety education has to meet the National Boating Safety Education Standards of the National Association of State Boating Law Administrators (NASBLA) and receive the approval of NASBLA.

After a review of these regulations, the Commission proposed to update them by adopting the following changes. The proposed changes to § 91.6 will simplify the definition of a Boating Safety Education Certificate. The Commission believes that this change more accurately reflects the intent of the act and will eliminate confusion among boaters who move their boats between states. The proposed amendments to § 91.7 will authorize the Executive Director to publish criteria upon which boating courses may be approved for the purposes of the act. The Executive Director will publish separate criteria for Internet, video and classroom courses.

The Commission's Boating Advisory Board considered the proposed amendments and recommended that the

Commission adopt them on final-form rulemaking. The Commission adopted the amendments as set forth in the notice of proposed rulemaking.

F. *Paperwork*

The final-form rulemaking will not increase paperwork and will create no new paperwork requirements. The Commission currently issues Boating Safety Education Certificates, which will not be changed by the amendments. The Commission will publish course criteria in the *Pennsylvania Bulletin* under the amendments.

G. *Fiscal Impact*

The final-form rulemaking will have no adverse fiscal impact on the Commonwealth or its political subdivisions. The final-form rulemaking will impose no new costs on the private sector or the general public.

H. *Public Involvement*

A notice of proposed rulemaking was published at 37 Pa.B. 6415 (December 8, 2007). During the public comment period, the Commission did not receive any public comments regarding the proposal.

Findings

The Commission finds that:

(1) Public notice of intention to adopt the amendments adopted by this order has been given under sections 201 and 202 of the act of July 31, 1968 (P. L. 769, No. 240) (45 P. S. §§ 1201 and 1202) and the regulations promulgated thereunder, 1 Pa. Code §§ 7.1 and 7.2.

(2) A public comment period was provided, and no comments were received.

(3) The adoption of the amendments of the Commission in the manner provided in this order is necessary and appropriate for administration and enforcement of the authorizing statutes.

Order

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

(a) The regulations of the Commission, 58 Pa. Code Chapter 91, are amended by amending §§ 91.6 and 91.7 to read as set forth in 37 Pa.B. 6415.

(b) The Executive Director will submit this order and 37 Pa.B. 6415 to the Office of Attorney General for approval as to legality as required by law.

(c) The Executive Director shall certify this order and 37 Pa.B. 6415 and deposit them with the Legislative Reference Bureau as required by law.

(d) This order shall take effect immediately upon publication in the *Pennsylvania Bulletin*.

DOUGLAS J. AUSTEN, Ph.D.,
Executive Director

Fiscal Note: Fiscal Note 48A-197 remains valid for the final adoption of the subject regulations.

[Pa.B. Doc. No. 08-668. Filed for public inspection April 11, 2008, 9:00 a.m.]