#### 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:

\* \* \* \* \*

<u>Vintage</u> or <u>vintage year--The calendar year assigned to an allowance by the issuing authority that designates the first year in which it is valid [for use in meeting an emission limit] TO BE APPLIED AGAINST EMISSIONS.</u>

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#### CHAPTER 129. STANDARDS FOR SOURCES

#### ADDITIONAL NOX REQUIREMENTS

§ 129.201. Boilers.

\* \* \* \* \*

(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).

\* \* \* \* \*

(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 NOx TRADING PROGRAMS) [§§ 145.1—145.7, 145.10—145.14, 145.30, 145.31, 145.40—145.43, 145.50—145.57, 145.60—145.62 and 145.70—145.76] shall be 0.17 pounds NOx per

million Btu heat input. [The owner or operator may demonstrate compliance with this paragraph through the provisions of §§ 145.80-145.88 (relating to opt-in process).]

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## § 129.202. Stationary combustion turbines.

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(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).

\* \* \*

(2) The emission rate for a stationary combustion turbine 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 NOX TRADING PROGRAMS) [§§ 145.1—145.7, 145.10—145.14, 145.30, 145.31, 145.40—145.43, 145.50—145.57, 145.60—145.62 and 145.70—145.76] shall be 0.17 pounds NOx per million Btu heat input. [The owner or operator may demonstrate compliance with this paragraph through the provisions of §§ 145.80-145.88 (relating to opt-in process).]

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# § 129.204. Emission accountability.

\* \* \* \* \*

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

\* \* \* \* \*

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

\* \* \* \* \*

(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 <u>CAIR NOx ALLOWANCE AND ONE CAIR NOx Ozone Season</u> allowance, as defined in [§] [145.2][145.202] 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 [NOx] 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.

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#### CHAPTER 145. INTERSTATE POLLUTION TRANSPORT REDUCTION

# **Subchapter A. NOx BUDGET TRADING PROGRAM**

#### **GENERAL PROVISIONS**

(*Editor's Note*: The following section is new. It has been printed in regular type to enhance readability.)

# § 145.8. Transition to CAIR NOx trading programs.

- (a) <u>ALLOWANCES</u>. The final year for NOx allowance allocations to be made by the Department under §§ 145.41 and 145.42 (relating to timing requirements for NOx allowance allocations; and NOx 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 NOx Budget Trading Program and CAIR NOx and SO<sub>2</sub> Trading Programs). 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 Subchapter D (relating to CAIR NOx and SO<sub>2</sub> trading programs).
- (b) TERMINATION AND RETIREMENT OF ALLOWANCES. NOx ALLOWANCES ALREADY ALLOCATED UNDER THIS SUBCHAPTER FOR 2009 OR LATER ARE TERMINATED AND MAY NOT BE USED FOR COMPLIANCE WITH THE CAIR NOX ANNUAL TRADING PROGRAM OR THE CAIR NOX 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 3619 ALLOWANCES ESTABLISHED IN § 145.40 (RELATING TO STATE TRADING PROGRAM BUDGET).

- (c) REQUIREMENTS REPLACED. The emission limitations and monitoring requirements established in Subchapter A are replaced by the requirements in Subchapter D pertaining to the CAIR NOx Ozone Season Trading Program 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 [§ 145.202] 40 CFR 96.302 (relating to definitions), 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 (RELATING TO CAIR NOX AND SO2 TRADING PROGRAMS), THE FOLLOWING REQUIREMENTS APPLY:
- (1) STATEWIDE LIMITATION. THE SUM OF NOX OZONE SEASON EMISSIONS FROM ALL UNITS SUBJECT TO THIS SUBSECTION SHALL 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, 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" =** 

3438 TONS OF NOx

### **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 1 CAIR NOX OZONE SEASON ALLOWANCE AND 1 CAIR NOX ALLOWANCE FOR EACH TON OF EXCESS EMISSIONS. A UNIT WHOSE EXCESS EMISSIONS ARE 0.5 TONS 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 3 CAIR NOx OZONE SEASON ALLOWANCES AND 3 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. 181 TONS OF ALLOWABLE NOX EMISSIONS ARE AVAILABLE TO THE DEPARTMENT ANNUALLY FOR ACCOUNTING CORRECTIONS.

### [INTERSTATE POLLUTION TRANSPORT REDUCTION REQUIREMENTS

- (Editor's Note: The following section is new. It has been printed in regular type to enhance readability.)

### § 145.101. Transition requirements for nonelectric generating units.

- (a) Beginning May 1, 2009, the applicability requirements in § 145.4(a)(2) (relating to applicability) will no longer apply to nonelectric generating units.
- (b) Beginning May 1, 2009, nonelectric generating units will be subject to one of the following:
- (1) Ozone Season NOx permit limit. The Department will establish an Ozone Season NOx permit limit effective May 1, 2009, equal to the most recent Ozone Season NOx allowance allocation for each nonelectric generating unit that meets the applicability requirements of a NOx budget unit under § 145.4(a)(2) before May 1, 2009.
- (2) NOx allowance allocation. If the Department approves a plan approval application by May 1, 2008, for a nonclectric generating unit to be subject to CAIR NOx Ozone Season requirements under §§ 145.221—145.223 (relating to timing requirements for CAIR NOx Ozone Season allowance allocations; CAIR NOx Ozone Season allowance allocations; and supplemental monitoring, recordkeeping and reporting requirements for gross electrical output and useful thermal energy for units subject to 40 CFR 96.370—96.375), the Ozone Season NOx permit limit described in paragraph (1) will not apply to the nonclectric generating unit. The unit will receive CAIR NOx Ozone Season allowances for the duration of the CAIR NOx Ozone Season Trading Program or for the life of the unit, whichever is shorter, under the allocation cycle described in § 145.221. The amount of CAIR NOx Ozone Season allowances allocated to a nonclectric generating unit under this paragraph will equal the unit's 2008 NOx allowance allocation under Subchapter A (relating to NOx Budget Trading Program). The Department will amend the unit's permit to subject the unit to §§ 145.221—145.223 for the duration of the CAIR NOx Ozone Season Trading Program.
- (c) A nonelectric generating unit may meet the limit in subsection (a) or (b) by retiring CAIR NOx Ozone Season allowances.
- (d) A nonelectric generating unit may opt-in to the CAIR NOx Ozone Season program in accordance with 40 CFR Part 96, Subpart IIII (relating to CAIR NOx Ozone Season opt-in units).
- (e) A nonelectric generating unit shall comply with the 40 CFR Part 75 (relating to continuous emission monitoring) monitoring requirements specified under 40 CFR Part 96, Subpart HHHH (relating to monitoring and reporting) to demonstrate compliance with this section. Alternatively, if approved by the Department in writing, a nonelectric generating unit may meet the monitoring requirements of this section by complying with the most recent version of the Department's continuous emissions monitoring system program manual.]

# 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 <u>CAIR NOx ALLOWANCE AND ONE CAIR</u> NOx <u>Ozone Season</u> allowance, as defined in [§] [145.2][145.2][145.202] 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 [CAIR] [NOx] [Ozone Season] 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.

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### Subchapter C. EMISSIONS OF NOx FROM CEMENT MANUFACTURING

# § 145.143. Standard requirements.

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(d) The owner or operator of a Portland cement kiln subject to this section shall surrender to the Department one <u>CAIR NOx ALLOWANCE AND ONE CAIR NOx Ozone Season</u> allowance, as defined in [§] [145.2][145.202] 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 [CAIR] [NOx] [Ozone Season] 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.

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(*Editor's Note*: The following subchapter is new. It has been printed in regular type to enhance readability.)

# Subchapter D. CAIR NOx AND SO<sub>2</sub> 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 nitrogen oxides, and the CAIR SO<sub>2</sub> Trading Program as a means of mitigating the interstate transport of fine particulates and sulfur dioxide. 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:

[Acid Rain Program--A multistate sulfur dioxide and nitrogen oxides air pollution control and emission reduction program established by the Administrator under Title IV of the

Clean Air Act (42 U.S.C.A. §§ 7651--76510), regarding acid deposition control, and 40 CFR Parts 72--78.

Administrator—The Administrator of the EPA or the Administrator's authorized representative.

Bottoming-cycle cogeneration unit—A cogeneration unit in which the energy input to the unit is first used to produce useful thermal energy and at least some of the reject heat from the useful thermal energy application or process is then used for electricity production.

CAIR NOx allowance—A limited authorization issued by a permitting authority or the Administrator under provisions of a state implementation plan that are approved under 40 CFR 51.123(o)(1), (2) or (p) (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), or under 40 CFR Part 97, Subpart EE (relating to CAIR NOx allowance allocations) or 40 CFR 97.188 (relating to CAIR NOx allowance allocations to CAIR NOx opt—in units), to emit 1 ton of nitrogen oxides during a control period of the specified calendar year for which the authorization is allocated or of any calendar year thereafter under the CAIR NOx Program. An authorization to emit nitrogen oxides that is not issued under provisions of a state implementation plan that are approved under 40 CFR 51.123(o)(1), (2) or (p) or 40 CFR Part 97, Subpart EE or 40 CFR 97.188 will not be a CAIR NOx allowance.

CAIR NOx Annual Trading Program—A multistate nitrogen oxides air pollution control and emission reduction program approved and administered by the Administrator in accordance with 40 CFR Part 96, Subparts AA—II and 40 CFR 51.123 or established by the Administrator in accordance with 40 CFR Part 97, Subparts AA—II and 40 CFR 51.123(p) and 52.35 (relating to what are the requirements of the Federal Implementation Plans (FIPs) for the Clean Air Interstate Rule relating to emissions of nitrogen oxides?), as a means of mitigating interstate transport of fine particulates and nitrogen oxides. The term refers to the program as adopted in §§ 145.201—145.205, 145.211—145.213 and 145.221—145.223.

-CAIR NOx Ozone Season allowance--A limited authorization issued by a permitting authority or the Administrator under provisions of a state implementation plan that are approved under 40 CFR 51.123(aa)(1) or (2) (and (bb)(1)), (bb)(2), (dd) or (ee), or under 40 CFR Part 97, Subpart EEEE (relating to CAIR NOx Ozone Season allowance allocations) or 40 CFR 97.388 (relating to CAIR NOx Ozone Season allowance allocations to CAIR NOx Ozone Season opt-in units), to emit 1 ton of nitrogen oxides during a control period of the specified calendar year for which the authorization is allocated or of any calendar year thereafter under the CAIR NOx Ozone Season Trading Program or a limited authorization issued by a permitting authority for a control period during 2003 through 2008 under the NOx Budget Trading Program in accordance with 40 CFR 51.121(p) (relating to findings and requirements for submission of State implementation plan revisions relating to emissions of oxides of nitrogen) to emit 1 ton of nitrogen oxides during a control period, provided that the provision in 40 CFR 51.121(b)(2)(ii)(E) may not be used in applying this

definition and the limited authorization may not have been used to meet the allowance-holding requirement under the NOx Budget Trading Program. An authorization to emit nitrogen oxides that is not issued under provisions of a state implementation plan approved under 40 CFR 51.123(aa)(1) or (2) (and (bb)(1)), (bb)(2), (dd) or (ee) or 40 CFR Part 97, Subpart EEEE or 40 CFR 97.388 or under the NOx Budget Trading Program as described in the prior sentence will not be a CAIR NOx Ozone Season allowance.

CAIR NOx Ozone Season Trading Program—A multistate nitrogen oxides air pollution control and emission reduction program approved and administered by the Administrator in accordance with 40 CFR Part 96, Subparts AAAA—IIII and 40 CFR 51.123 or established by the Administrator in accordance with 40 CFR Part 97, Subparts AAAA—IIII and 40 CFR 51.123(ee) and 52.35 as a means of mitigating interstate transport of ozone and nitrogen oxides. The term refers to the program as adopted in §§ 145.201—145.204 (relating to general provisions) and §§ 145.221—145.223 (relating to additional requirements for CAIR NOx Ozone Season trading program).

-CAIR NOx Ozone Season unit-A unit that is subject to the CAIR NOx Ozone Season Trading Program under 40 CFR 96.304 (relating to applicability) and, except for purposes of 40 CFR 96.305 (relating to retired unit exemption) and 40 CFR Part 96, Subpart EEEE, a CAIR NOx Ozone Season opt-in unit under 40 CFR Part 96, Subpart IIII.

-CAIR NOx unit--A unit that is subject to the CAIR NOx Annual Trading Program under 40 CFR 96.104 (relating to applicability) and, except for purposes of 40 CFR 96.105 (relating to retired unit exemption) and 40 CFR Part 96, Subpart EE (relating to CAIR NOx allowance allocations), a CAIR NOx opt-in unit under 40 CFR Part 96, Subpart II (relating to CAIR NOx opt-in units).

CAIR SO<sub>2</sub> Trading Program—A multistate sulfur dioxide air pollution control and emission reduction program approved and administered by the Administrator in accordance with 40 CFR Part 96, Subparts AAA—III and 40 CFR 51.124 (relating to findings and requirements for submission of State implementation plan revisions relating to emissions of sulfur dioxide under the Clean Air Interstate Rule) or established by the Administrator in accordance with 40 CFR Part 97, Subparts AAA—III and 40 CFR 51.124(r) and 52.36 (relating to what are the requirements of the Clean Air Interstate Rule Federal Implementation Plans relating to emissions of sulfur dioxide?), as a means of mitigating interstate transport of fine particulates and sulfur dioxide.

-CAIR SO<sub>2</sub> unit-A unit that is subject to the CAIR SO<sub>2</sub> Trading Program under 40 CFR 96.204 (relating to applicability) and, except for purposes of 40 CFR 96.205 (relating to retired unit exemption), a CAIR SO<sub>2</sub> opt-in unit under 40 CFR Part 96, Subpart III (relating to CAIR SO<sub>2</sub> opt-in units).

- Cogeneration unit--A stationary, fossil-fuel-fired boiler or stationary, fossil-fuel-fired combustion turbine meeting both of the following requirements:

- —(i) Having equipment used to produce electricity and useful thermal energy for industrial, commercial, heating or cooling purposes through the sequential use of energy.
- (ii) Producing during the 12-month period starting on the date the unit first produces electricity and during any calendar year after the calendar year in which the unit first produces electricity, the following:
- (A) For a topping-cycle cogeneration unit, both of the following:
- (I) Useful thermal energy not less than 5% of total energy output.
- —(II) Useful power that, when added to one-half of useful thermal energy produced, is not less than 42.5% of total energy input, if useful thermal energy produced is 15% or more of total energy output, or not less than 45% of total energy input, if useful thermal energy produced is less than 15% of total energy output.
- (B) For a bottoming-cycle cogeneration unit, useful power not less than 45% of total energy input.

#### -Combustion turbine--

- (i) An enclosed device comprising a compressor, a combustor, and a turbine and in which the flue gas resulting from the combustion of fuel in the combustor passes through the turbine, rotating the turbine.
- (ii) If the enclosed device is combined cycle, the term includes any associated duct burner, heat recovery steam generator, and steam turbine.

#### -Commence commercial operation--

- (i) For purposes of the CAIR NOx Annual Trading Program, the term "commence commercial operation" means, with regard to a unit, the following:
- (A) To have begun to produce steam, gas or other heated medium used to generate electricity for sale or use, including test generation, except as provided in 40 CFR 96.105 and 40 CFR 96.184(h) (relating to opt-in process).
- (I) For a unit that is a CAIR NOx unit under 40 CFR 96.104 on the later of November 15, 1990, or the date the unit commences commercial operation as defined in this subparagraph and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), the date shall remain the date of commencement of commercial operation of the unit, which shall continue to be treated as the same unit.
- —(II) For a unit that is a CAIR NOx unit under 40 CFR 96.104 on the later of November 15, 1990, or the date the unit commences commercial operation as defined in this subparagraph and that is subsequently replaced by a unit at the same source (in other

words, repowered), the date shall remain the replaced unit's date of commencement of commercial operation, and the replacement unit shall be treated as a separate unit with a separate date for commencement of commercial operation as defined in this clause or clause (B), as appropriate.

- (B) Notwithstanding clause (i)(A) and except as provided in 40 CFR 96.105, for a unit that is not a CAIR NOx unit under 40 CFR 96.104 on the later of November 15, 1990, or the date the unit commences commercial operation as defined in clause (i)(A), the unit's date for commencement of commercial operation shall be the date on which the unit becomes a CAIR NOx unit under 40 CFR 96.104.
- —(I) For a unit with a date for commencement of commercial operation as defined in this subparagraph and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), the date shall remain the date of commencement of commercial operation of the unit, which shall continue to be treated as the same unit.
- —(II) For a unit with a date for commencement of commercial operation as defined in this subparagraph and that is subsequently replaced by a unit at the same source (in other words, repowered), the date shall remain the replaced unit's date of commencement of commercial operation, and the replacement unit shall be treated as a separate unit with a separate date for commencement of commercial operation as defined in this clause or clause (A), as appropriate.
- (ii) For purposes of the CAIR NOx Ozone Season Trading Program, the term "commence commercial operation" means, with regard to a unit, the following:
- (A) To have begun to produce steam, gas or other heated medium used to generate electricity for sale or use, including test generation, except as provided in 40 CFR 96.305 and 96.384(h) (relating to opt-in process).
- (I) For a unit that is a CAIR NOx Ozone Season unit under 40 CFR 97.304 (relating to applicability) on the later of November 15, 1990, or the date the unit commences commercial operation as defined in this subparagraph and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), the date shall remain the date of commencement of commercial operation of the unit, which shall continue to be treated as the same unit.
- (II) For a unit that is a CAIR NOx Ozone Season unit under 40 CFR 96.304 on the later of November 15, 1990, or the date the unit commences commercial operation as defined in this subparagraph and that is subsequently replaced by a unit at the same source (in other words, repowered), the date shall remain the replaced unit's date of commencement of commercial operation, and the replacement unit shall be treated as a separate unit with a separate date for commencement of commercial operation as defined in this clause or clause (B), as appropriate.

- (B) Notwithstanding clause (A) and except as provided in 40 CFR 96.305, for a unit that is not a CAIR NOx Ozone Season unit under 40 CFR 96.304 on the later of November 15, 1990, or the date the unit commences commercial operation as defined in clause (A), the unit's date for commencement of commercial operation shall be the date on which the unit becomes a CAIR NOx Ozone Season unit under 40 CFR 96.304.
- —(I) For a unit with a date for commencement of commercial operation as defined in this subparagraph and that subsequently undergoes a physical change (other than replacement of the unit by a unit at the same source), the date shall remain the date of commencement of commercial operation of the unit, which shall continue to be treated as the same unit.
- —(II) For a unit with a date for commencement of commercial operation as defined in this subparagraph and that is subsequently replaced by a unit at the same source (in other words, repowered), the date shall remain the replaced unit's date of commencement of commercial operation, and the replacement unit shall be treated as a separate unit with a separate date for commencement of commercial operation as defined in this clause or clause (A), as appropriate.

#### -Control period--For purposes of the:

- —(i) CAIR NOx Annual Trading Program, the period beginning January 1 of a calendar year, except as provided in 40 CFR 96.106(c)(2) (relating to standard requirements), and ending on December 31 of the same year, inclusive.
- (ii) CAIR NOx Ozone Season Trading Program, the period beginning May 1 of a calendar year, except as provided in 40 CFR 96.306(c)(2) (relating to standard requirements), and ending on September 30 of the same year, inclusive.]

*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.

### <u>DEMAND SIDE MANAGEMENT ENERGY EFFICIENCY QUALIFYING RESOURCE—</u> 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.

[Gross electrical output—The total electrical output from an electric generating unit before making any deductions for energy output used in any way related to the production of energy. For an electric generating unit generating only electricity, the gross electrical output is the output from the turbine/generator set.]

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

#### -Operator-

- (i) For purposes of the CAIR NOx Annual Trading Program, any person who operates, controls or supervises a CAIR NOx unit, CAIR NOx source, CAIR NOx Ozone Season unit or CAIR NOx Ozone Season source.
- (ii) The term includes a holding company, utility system or plant manager of the unit or source.
- -Owner--Any of the following persons:
- —(i) With regard to a CAIR NOx source, CAIR NOx unit at a source, CAIR NOx Ozone Season source or CAIR NOx Ozone Season unit at a source, respectively, any of the following persons:
- (A) A holder of any portion of the legal or equitable title in a CAIR NOx unit at the source, the CAIR NOx unit, the CAIR NOx Ozone Season unit at the source or the CAIR NOx Ozone Season unit.
- (B) A holder of a leasehold interest in a CAIR NOx unit at the source, the CAIR NOx unit, a CAIR NOx Ozone Season unit at the source or the CAIR NOx Ozone Season unit.
- -(C) A purchaser of power from a CAIR NOx unit at the source, the CAIR NOx unit, a CAIR NOx Ozone Season unit at the source or the CAIR NOx Ozone Season source under a life-of-the-unit, firm power contractual arrangement; provided that, unless expressly provided for in a leasehold agreement, the term "owner" does not include a passive lessor, or a person who has an equitable interest through a passive lessor, whose rental payments are not based (either directly or indirectly) on the revenues or income from the CAIR NOx unit or CAIR NOx Ozone Season unit.
- —(ii) With regard to any general account, a person who has an ownership interest with respect to the CAIR NOx allowances or CAIR NOx Ozone Season allowances held in the general account and who is subject to the binding agreement for the CAIR authorized

account representative to represent the person's ownership interest with respect to CAIR NOx allowances or CAIR NOx Ozone Season allowances.

— Ozone Season—The period beginning May 1 of a calendar year and ending on September 30 of the same year, inclusive.]

Pennsylvania Alternative Energy Portfolio Standard--An applicable standard promulgated under the Alternative Energy Portfolio Standards Act, **AS AMENDED** (73 P. S. §§ 1648.1-1648.8).

*Renewable energy--*[Energy generated:]

- (i) <u>RENEWABLE ENEGRY GENERATED</u> [B]By one or more of the following fuels, energy resources or technologies, and that does not emit NOx or SO<sub>2</sub>:
  - (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) **RENEWABLE ENERGY DOES NOT INCLUDE ENERGY GENERATED** [**F**]**F**rom nuclear fuel, biomass, landfill gas, fuel cells that employ a fuel processor that emits NOx, or hydro using pumped storage [**is not renewable energy**].

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 megawatthour of electricity from an alternative energy source.

[*Tier I r*] <u>Renewable energy qualifying <u>RE</u>source--A renewable energy measure that generates renewable energy certificates [under the applicable Pennsylvania Alternative Energy Portfolio Standard].</u>

[Tier II demand side management energy efficiency qualifying source—A demand side management energy efficiency measure that has no associated NOx emissions and that generates certified alternative energy credit under the applicable Pennsylvania Alternative Energy Portfolio Standard.]

[Topping-cycle cogeneration unit--A cogeneration unit in which the energy input to the unit is first used to produce useful power, including electricity, and at least some of the reject heat from the electricity production is then used to provide useful thermal energy.

- *Unit--*A stationary, fossil-fuel-fired boiler, combustion turbine or other stationary, fossil-fuel-fired combustion device.
- *Useful power*--With regard to a cogeneration unit, electricity or mechanical energy made available for use, excluding any such energy used in the power production process (which process includes any onsite processing or treatment of fuel combusted at the unit and any onsite emission controls).
- *Useful thermal energy--*With regard to a cogeneration unit, thermal energy that is any of the following:
- (i) Made available to an industrial or commercial process (not a power production process), excluding heat contained in condensate return or makeup water.
- (ii) Used in a heating application (for instance, space heating or domestic hot water heating).
- (iii) Used in a space cooling application (in other words, thermal energy used by an absorption chiller).

# § 145.203. Applicability.

This subchapter applies to CAIR NOx units, CAIR NOx Ozone Season units and CAIR SO<sub>2</sub> units. [This subchapter also applies to tier I renewable energy qualifying sources and tier II demand side management energy efficiency qualifying sources.]

# § 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 SO<sub>2</sub> 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 SO<sub>2</sub> 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.

[A permit or plan approval will not be issued to the owner or operator of a unit not subject to this subchapter for which emission reduction credits (ERCs) or creditable emission reductions were considered in an applicability determination under Chapter 127, Subchapter E (relating to new source review) or for which any emission trade under Chapter 127 (relating to construction, modification, reactivation and operation of sources) is authorized, if the ERCs or creditable emission reductions were, or will be, generated by a unit subject to this subchapter, unless the following conditions are satisfied:

- —(1) Prior to issuing the permit or plan approval, the Department permanently reduces the Commonwealth's applicable CAIR NOx trading budget beginning six control periods after the date the unit will be authorized in the permit or plan approval to commence operation or increase emissions. The Department will reduce the trading budget for each control period by an amount of allowances equal to the amount that would be required to be surrendered under this subchapter if the allowable emissions stemming from the ERCs or creditable emission reductions were emitted.
- (2) The permit or plan approval contains a condition prohibiting the owner or the operator of the unit from commencing operation or increasing emissions until the owner or the operator of the unit that generated the ERCs or creditable emission reductions surrenders to the Department an amount of allowances equal to the amount that would be required to be surrendered under this subchapter if the allowable emissions stemming from the ERCs or creditable emission reductions were emitted for five consecutive control periods beginning with that date. The allowances surrendered must be of present or past vintage years.

THE FOLLOWING CONDITIONS MUST 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 BUDGET(S) 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 NOx ANNUAL TRADING PROGRAM

# § 145.211. Timing requirements for CAIR NOx allowance allocations.

- (a) *Provisions not incorporated by reference*. The requirements of 40 CFR 96.141 (relating to timing requirements for CAIR NOx 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 NOx 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 allowance allocations made in accordance with § 145.212 (relating to CAIR NOx allowance allocations) for the control periods in 2010 [and 2011]—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 allowance allocations made in accordance with § 145.212 for the control period[s] in [2012 and ]2013 in a format prescribed by the Administrator. By April 30 every [2] year[s] after 2009, the Department will submit the allocations for the next [two-]consecutive control period[s].

# (3) THE DEPARTMENT WILL RESERVE 1.3% OF THE CAIR NOX TRADING BUDGET FOR EACH ANNUAL CONTROL PERIOD FOR ALLOCATION TO UNITS AS PROVIDED UNDER § 145.212(f)(2).

- (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 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 NOx allowance allocations in the Pennsylvania Bulletin [as follows, ] 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:
  - ([i]1) For allocations made under subsection (b)(1), by April 1, 2008.
- ([ii]2) For allocations made under subsection (b)(2), by April 1, 2009, and by April 1 every [2] year[s] thereafter.
  - ([iii]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 ALLOWANCES FROM THE CAIR NOX TRADING BUDGET ESTABLISHED IN 40 CFR 96.140 (RELATING TO STATE TRADING BUDGETS) IN THE FOLLOWING ORDER:
- (1) TO NEW UNITS PURSUANT TO § 145.212(e).
- (2) TO UNITS PURSUANT TO § 145.212(f)(2).
- (3) TO UNITS PURSUANT TO § 145.212(c).

### § 145.212. CAIR NOx allowance allocations.

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

- (b) Baseline heat input. [Except for new unit allocations made under subsection (e) based on a previous year's emissions, and except for allocations made to subsection (f)(1) qualifying resources, the control period baseline heat input (in mmBtu) used with respect to CAIR NOx allowance allocations under subsection (e)] BASELINE HEAT INPUT for each CAIR NOx 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 NOx unit, then heat input data for the period multiplied by 0.25 and converted to MWh will be used to determine total output.

- [(vii) If the total allowances calculated for all eligible recipients exceeds the CAIR NOx annual budget, the Department will adjust allocations on a prorata basis to meet the budget.]
- (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 NOx units, including CAIR NOx units issued allowances under subsection (e), a total amount of CAIR NOx allowances equal to the number of CAIR NOx allowances remaining in the Commonwealth's **CAIR NOx 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 subsection **S**(b) **AND (f)(1)** from a baseline year that is [5] 6 CALENDAR years before the control period.
- (d) Proration of allowance allocations. [Except for allocations made under subsections (e) and (f)(2), t]The Department will allocate CAIR NOx allowances to each existing CAIR NOx unit and qualifying resource in an amount determined by multiplying the amount of CAIR NOx allowances [allocated] IN THE COMMONWEALTH'S CAIR NOx TRADING BUDGET AVAILABLE FOR ALLOCATION under subsection (c) [or (f), as applicable,] by the ratio of the baseline heat input of the existing CAIR NOx unit or qualifying resource to the [amount] SUM of THE baseline heat input of existing CAIR NOx units and OF THE qualifying resources[and], rounding to the nearest whole allowance as appropriate. [The Department will make CAIR NOx allowance allocations under this subsection after the Department makes CAIR NOx allowance allocations to units under subsection (e).]
- (e) Allocations to new CAIR NOx units. By March 31, 2011, and March 31 each year thereafter, the Department will allocate CAIR NOx allowances under § 145.211(c) (relating to timing requirements for CAIR NOx allowance allocations) to CAIR NOx 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 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 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 [§ 145.211(b)] 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 [two] control period[s] beginning with 2010 and thereafter, the Department will allocate CAIR NOx allowances to qualifying resources under paragraph (1) in this Commonwealth that are not also allocated CAIR NOx allowances under [subsection (e)] 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 sulfur dioxide requirements, and that commenced operation prior to January 1, 2000, but did not receive an allocation of SO<sub>2</sub> allowances under the EPA's Acid Rain program, as follows:

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(1) The Department will allocate CAIR NOx allowances to a [tier I] renewable energy qualifying resource or [tier II] 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 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 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 EPA AND THE DEPARTMENT.

- (ii) The Department will transfer the allowances into an account designated by the owner's CAIR AUTHORIZED ACCOUNT REPRESENTATIVE [or operator] of the qualifying resource, or into an account designated by an aggregator approved by the Public Utility Commission or its designee.
- (ii<u>i</u>) The applicant shall provide the Department with the corresponding renewable energy certificate serial numbers.
- ([iii]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 NOx allowances to the owner or operator of a CAIR SO<sub>2</sub> unit that commenced operation prior to January 1, 2000, that has not received an SO<sub>2</sub> allocation for that compliance period, as follows:
- (i) <u>BY JANUARY 31, 2011 AND EACH YEAR THEREAFTER, [T] The</u> owner or operator of a unit may apply, in writing, to the Department under this subsection to receive [a cost-equivalent additional amount of <u>EXTRA</u> CAIR NOx allowances [that were needed during each CAIR NOx allowance allocation cycle to be allocated in the following allocation cycle].
- (ii) The [cost-equivalent additional amount of CAIR NOx allowances an] owner or operator may request under this paragraph [is] 1 CAIR NOx allowance for every 8 tons of SO<sub>2</sub> emitted from a qualifying unit during the PRECEDING control period. AN OWNER OR OPERATOR OF A UNIT COVERED UNDER THIS PARAGRAPH THAT HAS OPTED

INTO THE ACID RAIN PROGRAM MAY REQUEST 1 CAIR NOx ALLOWANCE FOR EVERY 8 TONS OF SO<sub>2</sub> EMISSIONS THAT HAVE NOT BEEN COVERED BY THE SO<sub>2</sub> ALLOWANCES RECEIVED AS A RESULT OF OPTING INTO THE ACID RAIN PROGRAM.

- (iii) If the original CAIR NOx allowance allocation for the unit for the [eyele] CONTROL PERIOD exceeded [its] THE UNIT'S actual emissions of NOx for the [eyele] CONTROL PERIOD, the [value of] OWNER OR OPERATOR SHALL ALSO DEDUCT the excess CAIR NOx allowances [will not be included in the amount of CAIR NOx allowances allocated] 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 NOx allowances requested by all qualified units under this paragraph, AS ADJUSTED BY SUBPARAGRAPH (iii), IS LESS THAN 1.3% OF THE COMMONWEALTH'S CAIR NOX TRADING BUDGET, THE DEPARTMENT WILL ALLOCATE THE CORRECTED AMOUNTS. IF THE TOTAL NUMBER OF NOX ALLOWANCES REQUESTED BY ALL QUALIFIED UNITS UNDER THIS PARAGRAPH exceeds 1.3% of the [Pennsylvania] COMMONWEALTH'S [annual] CAIR NOX TRADING budget, [units will receive a-] THE DEPARTMENT WILL prorate [d] THE allocation based upon the following equation:

[(A unit's requested cost-equivalent CAIR NOx allowance allocation—facility excess allowances for the control period) × (0.013 × number of CAIR NOx allowances in Pennsylvania CAIR NOx budget for the control period)

Total number of CAIR NOx allowances requested from all units requesting allowances under this paragraph]

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

WHERE,

**AA IS THE UNIT'S PRORATED ALLOCATION,** 

**E**<sub>A</sub> IS THE ADJUSTED ALLOCATION THE UNIT MAY REQUEST UNDER SUBPARAGRAPH (iii),

**B**<sub>NA</sub> IS THE TOTAL NUMBER OF CAIR NOX ALLOWANCES IN THE COMMONWEALTH'S CAIR NOX TRADING BUDGET,

 $\underline{T_{RA}}$  IS THE TOTAL NUMBER OF CAIR NOX ALLOWANCES REQUESTED BY ALL UNITS REQUESTING ALLOWANCES UNDER THIS PARAGRAPH.

- [(v) Owners and operators of previously exempted units that opt in to [or are opted in to] the Acid Rain Program will also reduce the number of NOx allowances requested each year under this section by 1 NOx allowance for every 8 SO<sub>2</sub> allowances they are issued under the opt-in provisions of the Acid Rain Program.]
- (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 [annual] CAIR NOx TRADING budget is available for allocation in each [control period from] ALLOCATION CYCLE FROM 2011—2016 TO ALLOCATE 2010—2015 ALLOWANCES for the purpose of offsetting SO<sub>2</sub> emissions [under] FROM UNITS DESCRIBED IN paragraph (2). Beginning January 1, 201[6]7, 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) <u>THE DEPARTMENT WILL CORRECT ANY [E]E</u>rrors in allocations <u>MADE BY</u>
  <u>THE DEPARTMENT AND</u> discovered after <u>FINAL</u> allocations are made <u>BUT BEFORE</u>
  <u>THE NEXT ALLOCATION CYCLE</u>, [shall be corrected] in [a] <u>THE</u> subsequent allocation cycle <u>USING FUTURE ALLOWANCES THAT HAVE NOT YET BEEN ALLOCATED</u>.
- § 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, [2008]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 [2008]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, [2008]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 [and 2011] THROUGH 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[s] in [2012 and ] 2013 in a format prescribed by the Administrator. By April 30 every [2-] year[s] after 2009, the Department will submit the allocations for the next [two-]consecutive control period[s].
- (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 [as follows,] 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 [2] year [s] 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 PURSUANT TO § 145.222(e).
- (2) TO UNITS PURSUANT TO § 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. [Except for new unit allocations made under subsection (e) based on a previous year's emissions, and except for allocations made to subsection (f) qualifying resources, the control period baseline heat input (in mmBtu) used with respect to CAIR NOx Ozone Season allowance allocations under subsection (e) 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.

- [(vii) If the total allowances calculated for all eligible recipients exceeds the CAIR NOx Ozone Season budget, the Department will adjust allocations on a prorata basis to meet the budget.]
- (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 subsection (b) **AND (f)(1)** from an ozone season control period in a baseline year that is [5] 6 CALENDAR years before the control period.
- (d) Proration of allowance allocations. [Except for allocations made under subsection (e), £]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 [allocated] IN THE COMMONWEALTH'S CAIR NOx OZONE SEASON TRADING BUDGET AVAILABLE FOR ALLOCATION under subsection (c) [or (f), as applicable,] by the ratio of the baseline heat input of the existing CAIR NOx Ozone Season unit or qualifying resource to the [amount] SUMS of THE baseline heat input of existing CAIR NOx Ozone Season units and OF THE qualifying resources, [and] rounding to the nearest whole allowance as appropriate. [The Department will make CAIR NOx Ozone Season allowance allocations under this subsection after the Department makes CAIR NOx Ozone Season allowance allocations to units under subsection (e).]
- (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 [§ 145.221(b)] ANOTHER PROVISION OF THIS SUBCHAPTER.
- (f) Allocations to qualifying resources. For each [two] control period[s] 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 [subsection (c)] ANOTHER PROVISION OF THIS SUBCHAPTER, as follows:

(1) The Department will allocate CAIR NOx Ozone Season allowances to a [tier I] renewable energy qualifying resource or [tier H] 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 EPA AND THE DEPARTMENT.

- (ii) The Department will transfer the allowances into an account designated by the owner'S [or operator] CAIR AUTHORIZED ACCOUNT REPRESENTATIVE of the qualifying resource, or into an account designated by an aggregator approved by the Public Utility Commission or its designee.
- (ii<u>i</u>) The applicant shall provide the Department with the corresponding renewable energy certificate serial numbers.
- ([iii]iv) At least one whole allowance must be generated per owner, operator or aggregator for an allowance to be issued.
- [(2) The Department will review each CAIR NOx Ozone Season allowance allocation request under this subsection and will allocate CAIR NOx Ozone Season 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 Ozone Season allowances requested.
- (g) <u>THE DEPARTMENT WILL CORRECT ANY [E]Errors</u> in allocations <u>MADE BY</u>
  <u>THE DEPARTMENT AND</u> discovered after <u>FINAL</u> allocations are made <u>BUT BEFORE</u>
  <u>THE NEXT ALLOCATION CYCLE, [shall be corrected]</u> in [a] <u>THE</u> subsequent allocation cycle <u>USING FUTURE ALLOWANCES THAT HAVE NOT YET BEEN ALLOCATED</u>.

# § 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, [2008]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 [2008]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, [2008]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).