

3745-109-04      **CAIR NOx allowance allocations.**

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, federal rules, and federal statutory provisions referenced in this rule, see paragraph (H) of rule 3745-109-01 of the Administrative Code titled "Referenced materials."]

(A) State trading budget.

The state trading budget in Ohio for the CAIR NOx annual trading program for 2009 through 2014 is one hundred eight thousand six hundred sixty-seven tons and in 2015 and thereafter is ninety thousand five hundred fifty-six tons.

(B) Timing requirements for CAIR NOx allowance allocations.

(1) No later than September 30, 2007, the director shall submit to the administrator the CAIR NOx allowance allocations, in a format prescribed by the administrator and in accordance with paragraphs (C)(1) and (C)(2) of this rule, for the control periods in 2009 through 2014.

(2) Existing units.

By October 31, 2009 and by October thirty-first every six years thereafter, the director shall submit to the administrator the CAIR NOx allowance allocations, in a format prescribed by the administrator and in accordance with paragraphs (C)(1) and (C)(2) of this rule, for the control periods six years, seven years, eight years, nine years, ten years and eleven years after the year of the applicable deadline for submission under this paragraph.

(3) New units.

By October 31, 2009 and by October thirty-first of each year thereafter, the director shall submit to the administrator the CAIR NOx allowance allocations, in a format prescribed by the administrator and in accordance with paragraphs (C)(1), (C)(3) and (C)(4) of this rule, for the control period in the year of the applicable deadline for submission under this paragraph.

(C) CAIR NOx allowance allocations.

(1) Existing units.

(a) The baseline heat input (in mmBtu) used with respect to CAIR NOx allowance allocations under paragraph (C)(2) of this rule for each CAIR NOx unit shall be the following:

- (i) For units commencing operation before January 1, 2001 the average of the three highest amounts of the unit's adjusted control period heat input for 1998 through 2005, with the adjusted control period heat input for each year calculated as follows:
    - (a) If the unit is coal-fired during the year, the unit's control period heat input for such year is multiplied by one hundred per cent.
    - (b) If the unit is oil-fired during the year, the unit's control period heat input for such year is multiplied by sixty per cent.
    - (c) If the unit is not subject to paragraph (C)(1)(a)(i)(a) or (C)(1)(a)(i)(b) of this rule, the unit's control period heat input for such year is multiplied by forty per cent.
  - (ii) For units commencing operation on or after January 1, 2001 and operating each calendar year during a period of three or more consecutive calendar years, the average of the three highest amounts of the unit's total converted control period heat input.
- (b) Adjusted heat inputs.
- (i) A unit's control period heat input, and a unit's status as coal-fired or oil-fired, for a calendar year under paragraph (C)(1)(a)(i) of this rule, and a unit's total tons of NO<sub>x</sub> emissions during a calendar year under paragraph (C)(3)(c) of this rule, shall be determined in accordance with 40 CFR Part 75, to the extent the unit was otherwise subject to the requirements of 40 CFR Part 75 for the year, or shall be based on the best available data reported to the director for the unit, to the extent the unit was not otherwise subject to the requirements of 40 CFR Part 75 for the year.
  - (ii) A unit's converted control period heat input for a calendar year specified under paragraph (C)(1)(a)(ii) of this rule equals one of the following:
    - (a) Except as provided in paragraph (C)(1)(b)(ii)(b) or (C)(1)(b)(ii)(c) of this rule, the control period gross electrical output of the generator or generators served by the unit multiplied by seven thousand nine hundred Btu per kWh, if the unit is coal-fired for the year, or six thousand six hundred seventy-five Btu per kWh, if the unit is not coal-fired for the year, and divided by one million Btu per mmBtu, provided that if a generator is served by two or more units, then the gross electrical output of the generator shall be attributed to each unit in proportion to the unit's share of the total control period heat input of such units for the year.

- (b) 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 of the steam produced by the boiler during the control period, divided by 0.8 and by one million Btu per mmBtu.
- (c) 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, combustion, and turbine multiplied by three thousand four hundred thirteen Btu per kWh, plus the total heat energy of the steam produced by any associated heat recovery steam generator during the control period divided by 0.8, and with the sum divided by one million Btu per mmBtu.

(2) Adjusted allocations.

- (a) For each control period in 2009 and thereafter, the director shall allocate to all CAIR NO<sub>x</sub> units in the state that have a baseline heat input (as determined under paragraph (C)(1) of this rule) a total amount of CAIR NO<sub>x</sub> allowances equal to ninety-five per cent for a control period during 2009 through 2014, and ninety-seven per cent for a control period during 2015 and thereafter, of the tons of NO<sub>x</sub> emissions in the state trading budget under paragraph (A) of this rule (except as provided in paragraph (C)(4) of this rule).
  - (b) The director shall allocate CAIR NO<sub>x</sub> allowances to each CAIR NO<sub>x</sub> unit under paragraph (C)(2)(a) of this rule in an amount determined by multiplying the total amount of CAIR NO<sub>x</sub> allowances allocated under paragraph (C)(2)(a) of this rule by the ratio of the baseline heat input of such CAIR NO<sub>x</sub> unit to the total amount of baseline heat input of all such CAIR NO<sub>x</sub> units in the state and rounding to the nearest whole allowance as appropriate.
- (3) For each control period in 2009 and thereafter, the director shall allocate CAIR NO<sub>x</sub> allowances to CAIR NO<sub>x</sub> units in the state that are not allocated CAIR NO<sub>x</sub> allowances under paragraph (C)(2)(a) of this rule because the units do not yet have a baseline heat input under paragraph (C)(1)(a) of this rule or because the units have a baseline heat input but all CAIR NO<sub>x</sub> allowances available under paragraph (C)(2)(a) of this rule for the control period are already allocated, in accordance with the following procedures:
- (a) The director shall establish a separate new unit set-aside for each control period. Each new unit set-aside shall be allocated CAIR NO<sub>x</sub> allowances

equal to five per cent for a control period in 2009 through 2014, and three per cent for a control period in 2015 and thereafter, of the amount of tons of NO<sub>x</sub> emissions in the state trading budget under paragraph (A) of this rule.

- (b) The CAIR designated representative of such a CAIR NO<sub>x</sub> unit may submit to the director a request, in a format specified by the director, to be allocated CAIR NO<sub>x</sub> allowances, starting with the later of the control period in 2009 or the first control period after the control period in which the CAIR NO<sub>x</sub> unit commences commercial operation and until the first control period for which the unit is allocated CAIR NO<sub>x</sub> allowances under paragraph (C)(2) of this rule. A separate CAIR NO<sub>x</sub> allowance allocation request for each control period for which CAIR NO<sub>x</sub> allowances are sought must be submitted on or before May first of such control period and after the date on which the CAIR NO<sub>x</sub> unit commences commercial operation.
- (c) In a CAIR NO<sub>x</sub> allowance allocation request under paragraph (C)(3)(b) of this rule, the CAIR designated representative may request for a control period CAIR NO<sub>x</sub> allowances in an amount not exceeding the CAIR NO<sub>x</sub> unit's total tons of NO<sub>x</sub> emissions during the calendar year immediately before such control period.
- (d) The director shall review each CAIR NO<sub>x</sub> allowance allocation request under paragraph (C)(3)(b) of this rule and shall allocate CAIR NO<sub>x</sub> allowances for each control period pursuant to such request as follows:
  - (i) The director shall accept an allowance allocation request only if the request meets, or is adjusted by the director as necessary to meet, the requirements of paragraphs (C)(3)(b) and (C)(3)(c) of this rule.
  - (ii) For each control period on or after May first, the director shall determine the sum of the CAIR NO<sub>x</sub> allowances requested (as adjusted under paragraph (C)(3)(d)(i) of this rule) in all allowance allocation requests accepted under paragraph (C)(3)(d)(i) of this rule for the control period.
  - (iii) If the amount of CAIR NO<sub>x</sub> allowances in the new unit set-aside for the control period is greater than or equal to the sum under paragraph (C)(3)(d)(ii) of this rule, then the director shall allocate the amount of CAIR NO<sub>x</sub> allowances requested (as adjusted under paragraph (C)(3)(d)(i) of this rule) to each CAIR NO<sub>x</sub> unit covered by an allowance allocation request accepted under paragraph (C)(3)(d)(i) of this rule.
  - (iv) If the amount of CAIR NO<sub>x</sub> allowances in the new unit set-aside for the control period is less than the sum under paragraph (C)(3)(d)(ii) of this rule, then the director shall allocate to each CAIR NO<sub>x</sub> unit covered by

an allowance allocation request accepted under paragraph (C)(3)(d)(i) of this rule the amount of the CAIR NO<sub>x</sub> allowances requested (as adjusted under paragraph (C)(3)(d)(i) of this rule), multiplied by the number of CAIR NO<sub>x</sub> allowances in the new unit set-aside for the control period, divided by the sum determined under paragraph (C)(3)(d)(ii) of this rule, and rounded to the nearest whole allowance as appropriate.

- (v) The director shall notify each CAIR designated representative that submitted an allowance allocation request of the amount of CAIR NO<sub>x</sub> allowances (if any) allocated for the control period to the CAIR NO<sub>x</sub> unit covered by the request.

[Comment: As stated in paragraph (C)(3) of this rule, units commencing operation on or after January 1, 2001 and lacking a baseline heat input because of insufficient heat input data availability, as stated in paragraph (C)(1)(a)(ii) of this rule, shall be allocated allowances from the new unit set-aside. The unit will continue to be allocated allowances from the new unit set-aside, even if the unit has sufficient heat input data for determination of a baseline until such time as the director has determined new allowance allocations from the state trading budget under paragraph (A) of this rule, for all units in the state with a baseline heat input based on the timing requirements in paragraph (B) of this rule.]

- (4) If, after completion of the procedures under paragraph (C)(3)(d) of this rule for a control period, any unallocated CAIR NO<sub>x</sub> allowances remain in the new unit set-aside for the control period, the director shall allocate to each CAIR NO<sub>x</sub> unit that was allocated CAIR NO<sub>x</sub> allowances under paragraph (C)(2) of this rule an amount of CAIR NO<sub>x</sub> allowances equal to the total amount of such remaining unallocated CAIR NO<sub>x</sub> allowances, multiplied by the unit's allocation under paragraph (C)(2) of this rule, divided by ninety-five per cent for a control period during 2009 through 2014, and ninety-seven per cent for a control period during 2015 and thereafter, of the amount of tons of NO<sub>x</sub> emissions in the state trading budget under paragraph (A) of this rule, and rounded to the nearest whole allowance as appropriate.

(D) Early reduction credit.

- (1) The director will create a compliance supplemental pool (CSP) of twenty-five thousand thirty-seven early reduction credits. Each CAIR NO<sub>x</sub> unit for which the designated representative requests any early reduction credit under this rule shall monitor and report NO<sub>x</sub> emissions in accordance with 40 CFR Part 75 in the 2005 control period and for each control period for which any early reduction credit is requested. The unit's percent monitor data availability shall be not less than ninety per cent during the 2005 control period, and the unit shall

be in compliance with any applicable state or federal NOx emission control requirements during 2005 through 2008.

- (2) The NOx emission rate and heat input under paragraphs (D)(3) and (D)(4) of this rule shall be determined in accordance with 40 CFR Part 75.
- (3) Each CAIR NOx unit for which the designated representative requests early reduction credit under paragraph (D)(4) of this rule shall do the following:
  - (a) Reduce its NOx emission rate for each control period for which early reduction credit is requested to less than the unit's NOx emission rate in the 2005 control period.
  - (b) Reduce its NOx emission rate for each control period below any applicable state implementation plan limitation or the applicable NOx emission rate contained in any permit issued to the unit. Early reduction credits shall not be earned if the unit is required to achieve NOx emission reductions that are necessary to comply with any state or federal emissions limitation applicable during each control period.
  - (c) Be an existing coal-fired unit in operation during the 2007 or 2008 control periods and will be required to comply with CAIR annual NOx emission limitations beginning January 1, 2009.
- (4) A CAIR designated representative, for one or more CAIR NOx units that meet paragraphs (D)(1) to (D)(3) of this rule, is only eligible for the units' collective proportional share of the CSP, except as specified in paragraph (D)(6). The CAIR designated representative may submit to the director a request for early reduction credit based on NOx emission rate reductions for one or more CAIR NOx units in either or both of the control periods in 2007 and 2008.
  - (a) The collective proportional share of the CSP for a CAIR designated representative shall be equal to the product twenty-five thousand thirty-seven times the percentage calculated by dividing the sum of the baseline heat input for all CAIR NOx units represented by the designated representative by the sum of the baseline heat input for all CAIR NOx units subject to this rule.
  - (b) By November 26, 2007, the director shall calculate and publish the collective proportional share of the CSP for each CAIR designated representative eligible for CAIR early reduction credits. The director will also make available the data used to calculate the collective proportional shares of the CSP.
  - (c) The CAIR designated representative may request early reduction credits for NOx reductions made at one or more CAIR NOx units in the 2007 and/or

2008 control periods in an amount equal to the following: the unit's heat input for such control period multiplied by the difference between the unit's NOx emission rate (in pounds per mmBtu) during the 2005 control period and the NOx emission rate (in pounds per mmBtu) for each control period for which early reduction credits are requested, divided by two thousand pounds per ton and rounded to the nearest whole number of tons as appropriate. The total number of early reduction credits requested by a designated representative may exceed that representative's collective proportional share, and serve as a basis for additional CAIR NOx allocations from the CSP pursuant to paragraph (D)(6) of this rule.

- (d) Requests for early reduction credits for reductions made in 2007 or 2008 shall be submitted, in a format specified by the director, by February 1, 2009.
- (5) The director shall allocate CAIR NOx allowances from the CSP to the designated representative for CAIR NOx units meeting paragraphs (D)(1) to (D)(3) of this rule and for which early reduction credit requests meeting paragraph (D)(4)(c) of this rule were submitted, up to the collective proportional share of the CSP available to the CAIR designated representative as defined in paragraphs (D)(4)(a) and (D)(4)(b) of this rule.
- (6) If the total number of early reduction credits allocated per paragraph (D)(5) of this rule is less than twenty-five thousand thirty-seven, the director shall allocate the remaining available NOx allowances to those CAIR designated representatives who submitted early reduction credit requests for one or more CAIR NOx units that exceeded his or her collective proportional share. The director shall allocate the remaining available NOx allowances from the CSP to each CAIR NOx unit that meets the requirements of this paragraph according to the following formula rounded to the nearest whole number of CAIR NOx allowances as appropriate:
- [Twenty-five thousand thirty seven minus the CSP NOx allowances allocated under paragraph (D)(5) of this rule] multiplied by the [number of early reduction credits requested for a CAIR NOx unit under paragraph (D)(4)(c) of this rule minus the number of early reduction credits awarded to a CAIR NOx unit under paragraph (D)(5) of this rule] divided by the [(total number of early reduction credits requested for all CAIR NOx units under paragraph (D)(4)(c) minus the total number of early reduction credits awarded to all CAIR NOx units under paragraph (D)(5)]
- (7) A CAIR NOx unit's total early reduction credits allocated shall equal the sum of the early reduction credits determined under paragraphs (D)(5) and (D)(6) of this rule.

- (8) The director shall notify each CAIR authorized account representative who requested early reduction credits according to paragraph (D)(4) of this rule of the number of early reduction credit the administrator will record as CAIR NOx allowances for each CAIR NOx unit that made early reductions during the control periods in 2007 and 2008 by June 1, 2009, or at such time that sufficient 2008 unit's emissions data has been available by the administrator for the determination of the early reduction credits.
- (9) The director shall submit to the administrator the CAIR NOx allowance allocations determined in accordance with paragraphs (D)(5) and (D)(6) of this rule by November 30, 2009, or at such time based on the emissions data availability as described in paragraph (D)(8) of this rule.
- (10) The administrator will record the submitted allocations in paragraph (D)(9) of this rule by January 1, 2010.
- (11) CAIR NOx allowances available for reductions made in the 2007 and 2008 control periods and not allocated or recorded by the director in accordance with paragraphs (D)(5) and (D)(6) of this rule shall be retired.

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