

3745-109-04 **CAIR NO_x 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 the last paragraph of rule 3745-109-01 of the Administrative Code titled "Incorporation by Reference."]

(A) State trading budget.

The state trading budget in Ohio for the CAIR NO_x 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 NO_x allowance allocations.

(1) Within thirty days of the effective date of this rule, but no later than September 30, 2007, the director shall submit to the administrator the CAIR NO_x allowance allocations, in a format prescribed by the administrator and in accordance with paragraph (C)(1) and (C)(2) of this rule, for the control periods in 2009 through 2014.

(2) Existing units.

(a) By October 31, 2009 and by October thirty-first every six years thereafter, the director shall submit to the administrator the CAIR NO_x allowance allocations, in a format prescribed by the administrator and in accordance with paragraph (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.

(a) By October 31, 2009 and by October thirty-first of each year thereafter, the director shall submit to the administrator the CAIR NO_x 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 NO_x allowance allocations.

(1) Existing units.

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

- (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; and
 - (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_x 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:
 - (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; or
- (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 NOx units in the state that have a baseline heat input (as determined under paragraph (C)(1) of this rule) a total amount of CAIR NOx 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 NOx 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 NOx allowances to each CAIR NOx unit under paragraph (C)(2)(a) of this rule in an amount determined by multiplying the total amount of CAIR NOx allowances allocated under paragraph (C)(2)(a) of this rule by the ratio of the baseline heat input of such CAIR NOx unit to the total amount of baseline heat input of all such CAIR NOx 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 NOx allowances to CAIR NOx units in the state that are not allocated CAIR NOx 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 NOx 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_x 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_x emissions in the state trading budget under paragraph (A) of this rule.
- (b) The CAIR designated representative of such a CAIR NO_x unit may submit to the director a request, in a format specified by the director, to be allocated CAIR NO_x 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_x unit commences commercial operation and until the first control period for which the unit is allocated CAIR NO_x allowances under paragraph (C)(2) of this rule. A separate CAIR NO_x allowance allocation request for each control period for which CAIR NO_x allowances are sought must be submitted on or before May first of such control period and after the date on which the CAIR NO_x unit commences commercial operation.
- (c) In a CAIR NO_x allowance allocation request under paragraph (C)(3)(b) of this rule, the CAIR designated representative may request for a control period CAIR NO_x allowances in an amount not exceeding the CAIR NO_x unit's total tons of NO_x emissions during the calendar year immediately before such control period.
- (d) The director shall review each CAIR NO_x allowance allocation request under paragraph (C)(3)(b) of this rule and shall allocate CAIR NO_x 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_x 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_x 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_x allowances requested (as adjusted under paragraph (C)(3)(d)(i) of this rule) to each CAIR NO_x unit covered by an allowance allocation request accepted under paragraph (C)(3)(d)(i) of this rule.

- (iv) If the amount of CAIR NO_x 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_x unit covered by an allowance allocation request accepted under paragraph (C)(3)(d)(i) of this rule the amount of the CAIR NO_x allowances requested (as adjusted under paragraph (C)(3)(d)(i) of this rule), multiplied by the number of CAIR NO_x 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_x allowances (if any) allocated for the control period to the CAIR NO_x 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_x allowances remain in the new unit set-aside for the control period, the director shall allocate to each CAIR NO_x unit that was allocated CAIR NO_x allowances under paragraph (C)(2) of this rule an amount of CAIR NO_x allowances equal to the total amount of such remaining unallocated CAIR NO_x 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_x 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_x unit for which the designated representative requests any early reduction credit under this rule shall monitor and report NO_x 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 percent 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:
 - (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 the requirements of paragraphs (D)(1) through (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) Within sixty days of the effective date of this rule, 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 NO_x reductions made at one or more CAIR NO_x 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 NO_x emission rate (in pounds per mmBtu) during the 2005 control period and the NO_x 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 NO_x allocations from the CSP pursuant to paragraph (D)(6).
- (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 NO_x allowances from the CSP to the designated representative for CAIR NO_x units meeting the requirements of paragraphs (D)(1) through (D)(3) of this rule and for which early reduction credit requests meeting the requirements of 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).
- (6) If the total number of early reduction credits allocated per paragraph (D)(5) is less than twenty-five thousand thirty-seven, the director shall allocate the remaining available NO_x allowances to those CAIR designated representatives who submitted early reduction credit requests for one or more CAIR NO_x units that exceeded his or her collective proportional share. The director shall allocate the remaining available NO_x allowances from the CSP to each CAIR NO_x unit that meets the requirements of this paragraph according to the following formula rounded to the nearest whole number of CAIR NO_x allowances as appropriate:
- [Twenty-five thousand thirty seven minus the CSP NO_x allowances allocated under paragraph (D)(5)] multiplied by the [number of early reduction credits requested for a CAIR NO_x unit under paragraph (D)(4)(c) minus the number of early reduction credits awarded to a CAIR NO_x unit under paragraph (D)(5)] divided by the [(total number of early reduction credits requested for all CAIR NO_x units under paragraph (D)(4)(c) minus the total number of early reduction credits awarded to all CAIR NO_x units under paragraph (D)(5)]

- (7) A CAIR NO_x unit's total early reduction credits allocated shall equal the sum of the early reduction credits determined under paragraph (D)(5) and paragraph (D)(6).
- (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 NO_x allowances for each CAIR NO_x 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 NO_x allowance allocations determined in accordance with paragraphs (D)(5) and (D)(6) of this rule by July 1, 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 NO_x 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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