Chapter NR 432

ALLOCATION OF CLEAN AIR INTERSTATE RULE NO_x ALLOWANCES

NR 432.01 Applicability; purpose. (1) APPLICABILITY. (a) This chapter applies to the owner or operator of any source that includes a CAIR NO_x unit or a CAIR renewable unit. A CAIR NO_x unit is any stationary, fossil fuel-fired boiler or stationary, fossil fuel-fired combustion turbine which has served at any time, since the later of November 15, 1990 or the start-up of the unit's combustion chamber, a generator with nameplate capacity of more than 25 MWe producing electricity for sale, except for those units that are excluded under par. (b).

Note: In addition, a CAIR NO_x unit is subject to the requirements of 40 CFR part 97, Subparts AA, BB, CC, FF, GG, HH, AAAA, BBBB, CCCC, FFFF, GGGG, and HHHH.

(b) The following units are not CAIR NO_x units:

1. Any unit qualifying as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity and continuing to qualify as a cogeneration unit and which does not serve at any time, since the later of November 15, 1990 or the start-up of the unit's combustion chamber, a generator with a nameplate capacity of more than 25 MWe supplying in any calendar year more than one-third of the unit's potential electrical output capacity or 219,000 MWh, whichever is greater, to any utility power distribution system for sale.

2. Any solid waste incineration unit that commenced operation before January 1, 1985 and which had an average annual fuel consumption of non-fossil fuel for 1985 to 1987 exceeding 80% of the unit's total average annual fuel consumption for the period, on a Btu basis, and an average annual fuel consumption of non-fossil fuel for any 3 consecutive calendar years after 1990 exceeding 80% of the unit's total average annual fuel consumption for the same 3-year period, on a Btu basis.

3. Any solid waste incineration unit that commenced operation on or after January 1, 1985 and which had an average annual consumption of non-fossil fuel for the first 3 calendar years of operation exceeding 80% of the unit's total fuel consumption, on a Btu basis, and an average annual consumption of non-fossil fuel for any 3 consecutive calendar years after 1990 exceeding 80% of the unit's total fuel consumption, on a Btu basis.

(c) If a stationary boiler or stationary combustion turbine, that under par. (a), is not a CAIR NO_x unit, begins to combust fossil fuel or to serve a generator with a nameplate capacity of more than 25 MWe producing electricity for sale, the unit shall become a CAIR NO_x unit on the first date on which it both combusts fossil fuel and serves the generator as provided in par. (a).

(d) If a unit qualifies as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity and meets the requirements of par. (b) 1. for at least one calendar year, but subsequently no longer meets the requirements, the unit shall become a CAIR NO_x unit starting on the earlier of January 1 of the year immediately after the first calendar year during which the unit first no longer qualifies as a cogeneration unit or January 1of the year immediately after the first calendar year during which the unit no longer meets the requirements of par. (b) 1.

(e) If a unit qualifies as a solid waste incineration unit and meets the requirements of par. (b) 2. or 3. for at least 3 consecutive calendar years, but subsequently no longer meets all the requirements, the unit shall become a CAIR NO_x unit starting on the earlier of January 1 of the year immediately after the first calendar year during which the unit first no longer qualifies as a solid waste incinerator unit or January 1 of the year immediately after the first 3 consecutive calendar years after 1990 for which the unit has an average annual fuel consumption of fossil fuel of 20% or more of the unit's total fuel consumption.

(2) PURPOSE. This chapter is adopted under s. 285.11, Stats., to allocate the NO_x allowances for the CAIR NO_x annual trading program and the CAIR NO_x ozone season trading program. The purpose of this chapter is to implement only those parts of the CAIR NO_x annual trading program and the CAIR NO_x ozone season trading program that is administered by the EPA under the federal implementation plan for the CAIR relating to the allocation of CAIR NO_x allowances found in 40 CFR part 97, Subparts EE and EEEE.

(3) PETITION FOR APPLICABILITY. An owner or operator of any unit may petition the administrator of the EPA at any time for a determination concerning the applicability, under sub. (1), of the CAIR NO_x trading program and the CAIR NO_x ozone season trading program to the unit pursuant to 40 CFR 97.104 (c) and 40 CFR 97.304.

Note: This chapter modifies the schedule and methodology for allocating CAIR nitrogen oxides (NO_x) allowances that are set forth in the federal implementation plan. This chapter does not have a provision allowing any fossil fuel-fired unit that is not a CAIR NO_x unit to "opt-in" to a CAIR NO_x trading program. This chapter is not intended to modify in any other way the implementation or administration in Wisconsin of the federal implementation plan for CAIR. The CAIR NO_x federal implementation plan is published in 40 CFR part 97.

History: CR 06-104: cr. Register July 2007 No. 619, eff. 8-1-07.

NR 432.02 Definitions. The definitions contained in ch. NR 400 apply to the terms used in this chapter. In addition, the following definitions apply to the terms used in this chapter:

(1) "Actual weighted average NO_x emission rate" means, for an NO_x averaging plan under s. NR 409.065 (7), for a year the sum of the products of the actual annual average NO_x emission rate and actual annual heat input, as determined in accordance with 40 CFR part 75 transfers, for all units in the NO_x averaging plan for the year divided by the sum of the actual annual heat input, as determined in accordance with 40 CFR part 75, for all units in the NO_x averaging plan for the year.

(2) "Allocate" or "allocation" means, with regard to CAIR NO_x allowances or CAIR NO_x ozone season allowances, the determination by the department of the amount of CAIR NO_x allowances or CAIR NO_x ozone season allowances to be initially credited to a CAIR NO_x unit, a CAIR renewable unit, or other entity.

(3) "Biomass" means a resource that derives energy from wood or plant material or residue, biological waste, crops grown for use as a resource or landfill gases. "Biomass" does not include garbage, as defined in s. 289.01 (9), Stats., or nonvegetation – based industrial, commercial or household waste, except that "biomass" includes refuse-derived fuel used for a renewable facility that was in service before January 1, 1998.

(4) "Boiler" means an enclosed fossil fuel-fired or other fuel-fired combustion device used to produce heat and to transfer heat to recirculating water, steam, or other medium.

(5) "Bottom-cycle cogeneration unit" means 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.

(6) "CAIR" means the federal clean air interstate rule promulgated in 40 CFR part 97.

(7) CAIR designated representative" means, for a CAIR NO_x source and each CAIR NO_x unit at the source, the natural person who is authorized by the owners and operators of the source and all units at the source, in accordance with 40 CFR part 97, Subparts BB and HH and Subparts BBBB and HHHH, to represent and legally bind each owner and operator in matters pertaining to the CAIR NO_x annual trading program and the CAIR NO_x ozone season trading program. This person shall be the same person as the designated representative for the CAIR NO_x annual trading program and the CAIR NO_x ozone season trading program. If the CAIR NO_x source is also subject to the acid rain program, this natural person shall be the same person as the designated representative under the acid rain program.

(8) "CAIR NO_x allowance" means a limited authorization issued by the department under this chapter, to emit one ton of nitrogen oxides during a calendar year for which the authorization is allocated or during any calendar year thereafter under the CAIR NO_x annual trading program. An authorization to emit nitrogen oxides that is not issued under this chapter, 40 CFR part 97, Subpart EE, 40 CFR 97.188, or provisions of a state implementation plan that are approved under 40 CFR 51.123 (o) (1) or (2) is not a CAIR NO_x allowance.

(9) "CAIR NO_x annual trading program" means a multi-state nitrogen oxides air pollution control and emission reduction program established by the administrator in accordance with 40 CFR part 97, Subparts AA to HH and 40 CFR 51.123 (p) and 52.35 or approved and administered by the administrator under provisions of a state implementation plan that are approved under 40 CFR 51.123 (o) (1) or (2), as a means of mitigating interstate transport of fine particulates and nitrogen oxides.

(10) "CAIR NO_x ozone season allowance" means a limited authorization issued by the department under this chapter, to emit one ton of nitrogen oxides during an ozone season for which the authorization is allocated or during an ozone season of any calendar year thereafter under the CAIR NO_x ozone season trading program or a limited authorization issued by a permitting authority for a control period during 2003 through 2008 under the NO_x budget trading program in accordance with 40 CFR 51.121 (p) to emit one 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 NO_x budget trading program. An authorization to emit nitrogen oxides that is not issued under this chapter, 40 CFR part 97, Subpart EEEE, 40 CFR 97.388, or provisions of a state implementation plan that are approved under 40 CFR 51.123 (aa) (1) and (bb) (1), (aa) (2) and (bb) (1), (bb) (2) or (dd) or that meets the requirements of 40 CFR 51.121 (p) is not a CAIR NO_x ozone season allowance.

(11) "CAIR NO_x ozone season trading program" means a multi-state nitrogen oxides air pollution control and emission reduction program established by the administrator in accordance 40 CFR part 97, Subparts AAAA to HHHH and 40 CFR 51.123(ee) and 52.35 or administered by the administrator under provisions of a state implementation plan that are approved under 40 CFR 51.123 (aa) (1) and (bb) (1), (aa) (2) and (bb) (1), (bb) (2) or (dd), as a means of mitigating interstate transport of ozone and nitrogen oxides.

(12) "CAIR NO_x source" means a source that includes one or more CAIR NO_x units.

(13) "CAIR NO_x unit" means a unit that is subject to the CAIR NO_x annual trading program under 40 CFR 97.104 or the CAIR NO_x ozone trading program under 40 CFR 97.304.

(14) "CAIR renewable representative" means, for a CAIR renewable unit, the natural person who is authorized by the owners and operators of the unit in accordance with s. NR 432.07, to represent and legally bind each owner and operator in matters pertaining to the CAIR NO_x annual trading program and the CAIR NO_x ozone season trading program.

(15) "CAIR renewable unit" means an installed and operational electric generating facility, located in this state, commencing operation on or after January 1, 2001 that does either of the following:

(a) Generates renewable energy serving a generator with nameplate capacity greater than 25 MWe.

(b) Consists of units combined pursuant to s. 299.83, Stats., serving generators with combined nameplate capacity of greater than 25 MWe.

(16) "Coal-fired" means combusting any amount of coal or coal-derived fuel, alone or in combination with any amount of any other fuel, during a specified year.

(17) "Cogeneration unit" means a stationary, fossil fuel-fired boiler or stationary, fossil fuel-fired combustion turbine which has equipment used to produce electricity and useful thermal energy for industrial, commercial, heating or cooling purposes through the sequential use of energy and which 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, does one of the following, as appropriate:

(a) For a topping-cycle cogeneration unit, produces useful thermal energy not less than 5% of total energy output and useful power that, when added to one-half of useful thermal energy produced, is not less then 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, produces useful power not less than 45% of total energy input.

(18) "Combustion turbine" means 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. If the enclosed device is combined cycle, the combustion turbine includes any associated duct burner, heat recovery steam generator, and steam turbine.

(19) "Commence commercial operation" means, with regard to a unit:

(a) To have begun to produce steam, gas or other heated medium used to generate electricity for sale or use, including test

generation, except for retired units and repowered opt-in units as provided in 40 CFR 97.105, 97.184 (h), 97.304 or 97.384 (h).

1. For a unit that is a CAIR NO_x unit under 40 CFR 97.104 or 97.304 on the later of November 15, 1990 or the date the unit commences commercial operation as defined in par. (a) (intro.) 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.

2. For a unit that is a CAIR NO_x unit under 40 CFR 97.104 or 97.304 on the later of November 15, 1990 or the date the unit commences commercial operation as defined in par. (a) (intro.) and that is subsequently replaced by a unit at the same source, e.g., 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 par. (a) (intro.) or (b) (intro.) as appropriate.

(b) Notwithstanding par. (a) (intro.) and except for retired units as provided in 40 CFR 97.105 or 97.305, for a unit that is not a CAIR NO_x unit under 40 CFR 97.104 or 97.304 on the later of November 15, 1990 or the date the unit commences commercial operation as defined in par. (a) (intro.), the unit's date for commencement of commercial operation shall be the date on which the unit becomes a CAIR NO_x unit under 40 CFR 97.104 or 97.304.

1. For a unit with a date for commencement of commercial operation as defined in par. (b) (intro.) 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.

2. For a unit with a date for commencement of commercial operation as defined in par. (b) (intro.) and that is subsequently replaced by a unit at the same source, e.g., 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 par. (a) (intro.) or (b) (intro.) as appropriate.

(20) "Conventional resource" means a resource that derives energy from coal, oil, nuclear power or natural gas. A fuel cell that derives energy from natural gas is not a conventional resource.

(21) "Generator" means a device that produces electricity.

(22) "Gross electrical output" means electricity made available for use, including any electricity used in the power production process. A power production process includes any on-site processing or treatment of fuel combusted at the unit and any on-site emission controls.

(23) "Heat input" means, with regard to a specified period of time, the product, in mmBtu/time, of the gross calorific value of the fuel, in Btu/lb, divided by 1,000,000 Btu/mmBtu and multiplied by the fuel feed rate into a combustion device, in lb of fuel/time, as measured, recorded, and reported to the administrator by the CAIR designated representative and determined by the administrator in accordance with 40 CFR part 97, Subpart HH and excluding the heat derived from preheated combustion air, recirculated flue gases, or exhaust from other sources.

(24) "Heat input rate" means the amount of heat input, in mmBtu, divided by unit operating time, in hours, or, with regard to a specific fuel, the amount of heat input attributed to the fuel, in mmBtu, divided by the unit operating time, in hours, during which the unit combusts the fuel.

(25) "MWh" means megawatt hours.

(26) "Nameplate capacity" means, starting from the initial installation of a generator, the maximum electrical generating output, in MWe, that the generator is capable of producing on a steady state basis and during continuous operation, when not restricted by seasonal or other deratings, as of the installation as specified by the manufacturer of the generator or, starting from the completion of any subsequent physical change in the generator resulting in an increase in the maximum electrical generating output, in MWe, that the generator is capable of producing on a steady state basis and during continuous operation, when not restricted by seasonal or other deratings, the increased maximum amount as of the completion as specified by the person conducting the physical change.

(27) "Operator" means any person who operates, controls or supervises a CAIR NO_x unit, a CAIR NO_x source or a CAIR renewable unit and includes any holding company, utility system or plant manager of a unit or source.

(28) "Owner" means any of the following persons:

(a) Any holder of any portion of the legal or equitable title in a CAIR NO_x unit at the source, a CAIR NO_x unit or a CAIR renewable unit.

(b) Any holder of a leasehold interest in a CAIR NO_x unit at the source, a CAIR NO_x unit or a CAIR renewable unit.

(c) Any purchaser of power from a CAIR NO_x unit at the source, a CAIR NO_x unit or a CAIR renewable unit under a life-of-the-unit, firm power contractual arrangement; provided that, unless expressly provided for in a leasehold agreement, owner may not include a passive lessor, or a person who has an equitable interest through the lessor, whose rental payments are not based, either directly or indirectly, on the revenues or income from the CAIR NO_x unit.

(29) "Permitting authority" means a state air pollution control agency, local agency, other state agency or other agency authorized by the administrator of the EPA to issue or revise permits to meet the requirements of the CAIR NO_x trading program or the CAIR NO_x ozone season trading program in accordance with 40 CFR part 97, Subpart CC and CCCC or, if no agency has been authorized, the administrator of the EPA.

(30) "Potential electrical output capacity" means 33% of a unit's maximum design heat input, divided by 3,413 Btu/kWh, divided by 1,000 kWh/MWh and multiplied by 8,760 hr/yr.

(31) "Renewable energy" means electricity derived from a renewable resource.

(32) "Renewable resource" means any of the following:

(a) A resource that derives electricity from any of the following:

1. A fuel cell that uses a renewable fuel, as determined by the public service commission.
2. Wave action.
3. Solar thermal electric or photovoltaic energy.
4. Wind power.
5. Geothermal technology.
6. Biomass.

(b) A resource that derives electricity from hydroelectric power.

(c) Any resource not described in par. (a) or (b), except a conventional resource, that the public service commission has designated as a renewable resource in rules promulgated under s. 196.378 (4), Stats.

Note: The definition of a renewable resource is based on the definition in s. 196.378 (1) (h), Stats.

(33) "Repowered" means, with regard to a unit, replacement of a coal-fired boiler with one of the following coal-fired technologies at the same source as the coal-fired boiler:

(a) Atmospheric or pressurized fluidized bed combustion.

(b) Integrated gasification combined cycle.

(c) Magnetohydrodynamics.

(d) Direct and indirect coal-fired turbines.

(e) Integrated gasification fuel cells.

(f) As determined by the administrator in consultation with the secretary of energy, a derivative of one or more of the technologies under pars. (a) to (e) and any other coal-fired technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of January 1, 2005.

(34) "Solid waste incineration unit" means a stationary, fossil-fuel-fired boiler or stationary, fossil-fuel-fired combustion turbine that is a "solid waste incineration unit" as defined in section 129 (g) (1) of the Act (42 USC 7429 (g) (1)).

(35) "Topping-cycle cogeneration unit" means 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.

(36) "Total energy input" means, with regard to a cogeneration unit, total energy of all forms supplied to a cogeneration unit, excluding energy produced by the cogeneration unit itself.

(37) "Total energy output" means, with regard to a cogeneration unit, the sum of useful power and useful thermal energy produced by the cogeneration unit.

(38) "Unit" means either of the following:

(a) A stationary, fossil fuel-fired boiler or combustion turbine or other stationary, fossil fuel-fired combustion device.

(b) A CAIR renewable unit.

(39) "Useful thermal energy" means, with regard to a cogeneration unit, thermal energy that is any of the following:

(a) Made available to an industrial or commercial process, not a power production process, excluding any heat contained in condensate return or makeup water.

(b) Used in a heating application, such as space heating or hot water heating.

(c) Used in space cooling application, such as thermal energy used by an absorption chiller.

(40) "Utility power distribution system" means the portion of an electricity grid owned or operated by a utility and dedicated to delivering electricity to customers.

Note: The definitions in this section are limited to use in this chapter and are substantively similar to the federal CAIR definitions found in 40 CFR part 97 except for "gross electrical output" and "useful thermal energy". The difference in the definitions for these 2 terms is necessary to implement the state allocation structure that differs from the allocation structure in the federal implementation plan.

History: CR 06-104: cr. Register July 2007 No. 619, eff. 8-1-07.

NR 432.03 CAIR NO_x allowance allocation. The department shall use the procedures in this section for calculating and allocating CAIR NO_x allowances for CAIR NO_x units and CAIR renewable units.

(1) UNIT BASELINES. (a) *Calculating baseline energy output.* The department shall calculate the baseline energy output of each CAIR NO_x unit and each CAIR renewable unit, in MWh according to the following equations as appropriate:

1. For a CAIR NO_x unit that is a cogeneration unit and that has operated for 5 or more consecutive calendar years, by using one of the following equations:

a. Use equation 1a if the unit is the only unit serving a generator or, if more than one unit serves the same generator and unit-level data for equation 1a is available for all units:

$$B = GE_{avg} + \left(\frac{TE_{avg}}{3.4} \right)$$ Equation 1a

where:

B is the unit baseline energy output made available by the cogeneration unit in MWh

GE_{avg} is the average of the 3 highest annual amounts of the unit's annual gross electric output in MWh over the 5-year period identified in par. (b)

TE_{avg} is the average of the 3 highest annual amounts of the unit's annual useful thermal energy in mmBtu over the 5-year period identified in par. (b)

3.4 is a conversion factor in mmBtu/MWh

b. Use equation 1b if more than one unit serves the same generator and unit-level data for equation 1a is not available for all units:

$$B_i = \left(GE_{Gen} + \frac{TE_T}{3.4} \right) \times \left(\frac{NC_i}{\sum_{j=1}^{n} NC_j} \right)$$ Equation 1b

where:

B_i is the baseline energy output made available by cogeneration unit i in MWh

GE_{Gen} is the average of the 3 highest annual amounts of the annual gross electric output in MWh for the generator served over the 5-year period identified in par. (b)

TE_T is the average of the 3 highest annual amounts of annual useful thermal energy in mmBtu for the generator served over the 5-year period defined in par. (b)

3.4 is a conversion factor in mmBtu/MWh

NC_i is the nameplate capacity of unit i

n is the number of units serving the same generator

2. For a CAIR NO_x unit that is not a cogeneration unit and that has operated for 5 or more consecutive calendar years and for a CAIR renewable unit that has operated for 5 or more consecutive calendar years, by using one of the following equations as appropriate:

a. Use equation 2a if the unit is the only unit serving a generator or, if more than one unit serves the same generator and unit-level data for equation 2a is available for all units:

$$B = GE_{avg}$$ Equation 2a

where:

B is the unit baseline energy output made available by the CAIR NO_x unit or the CAIR renewable unit in MWh

GE_{avg} is the average of the 3 highest annual amounts of the unit's annual gross electric output in MWh over the 5-year period identified in par. (b)

b. Use equation 2b if more than one unit serves the same generator and unit-level data for equation 2a is not available for all units:

$$B_i = GE_{Gen} \times \left(\frac{NC_i}{\sum_{j=1}^{n} NC_j} \right)$$ Equation 2b

where:

B_i is the baseline energy output made available by CAIR NO_x unit i or CAIR renewable unit i in MWh

GE_{Gen} is the average of the 3 highest annual amounts of the annual gross electric output in MWh for the generator served over the 5-year period identified in par. (b)

NC_i is the nameplate capacity of unit i

n is the number of units serving the same generator

(b) *Periodic updates of baseline energy output for units with more than 5 years operating data.* The department shall use the procedures in this paragraph for calculating the unit baseline energy output for each CAIR NO_x unit or CAIR renewable unit which has more than 5 years of operating data.

1. In 2007, the department shall calculate the baseline energy output for each CAIR NO_x unit for 2009 to 2014 allowances using data for the years 2000 to 2004.

2. On or before May 1, 2011, and on or before May 1 of every fifth year thereafter, the department shall calculate the baseline energy output for each CAIR NO_x unit and each CAIR renewable unit for the next 5 year allocation period using data from the 5 calendar year period beginning 9 years before the first year of the allocation period and ending 5 years before the first year of the allocation period.

Note: For example in 2021, unit baseline energy output for the calculation of allocation for 2025 to 2029 allowances will be calculated using data from the years 2016 to 2020. In 2026, unit baseline energy output for the calculation of the allocation for 2030 to 2034 will be calculated using data from 2021 to 2025.

(c) *Baseline energy output for new units and units achieving 5 years of operating data for the first time.* The department shall use the procedures in this paragraph for calculating the unit baseline energy output for each CAIR NO_x unit or CAIR renewable unit which have only 5 years of operating data.

1. On or before May 1, 2011, the department shall calculate the baseline energy output for each CAIR NO_x unit and each CAIR renewable unit that commences operation on or after January 1, 2001 and that has operating data for the years 2006 to 2010 for 2015 to 2019 allowances using data for years 2006 to 2010.

2. On or before May 1, 2012, and on or before May 1 of every year thereafter, the department shall calculate the unit baseline energy output for each CAIR NO_x unit and each CAIR renewable unit that has been operating for its first 5 consecutive years, using the first 5 years of operating data. Once the unit's baseline energy output has been established, the CAIR NO_x unit or CAIR renewable unit's baseline energy output shall be updated according to par. (b).

Note: Starting in 2011, and every year thereafter, new units that commence operation on or after January 1, 2001 will have their unit baseline energy output calculated once the unit has 5 consecutive years of operating data. The 5 years of data do not have to be full years of data. Once the unit has 5 or more years of operating data, this unit is then incorporated into the state baselines calculated in s. NR 432.03 (1m) and receives allocations from the main allocation pool under s. NR 432.03 (2). These new units are incorporated into the main allocation pool on a yearly basis.

(d) Baseline energy output for retired units. If a unit is retired in any year, the department shall calculate the baseline energy output according to par. (b). If a unit only operates a portion of the year, the data for that portion shall constitute the unit's data for that year.

Note: The following is an example of how a retired unit's baseline energy output is calculated. A unit is retired in 2011. In 2011, unit baselines are updated using 2006 to 2010 annual data that will be used to calculate allocations for 2015 to 2019. For 2015 to 2019 allocations, the retired unit would receive all allowances based upon its unit baseline for 2006 to 2010 operating data even though it is no longer operating. In 2016, the next unit baseline updating year, the baseline for the unit would be determined using the most recent 5 years of data, 2011 to 2015. The 2016 updated baseline would be used to determine allocations for 2020 to 2025. If the unit had some operating data in 2011, it would receive minimal allowances in 2020 to 2025 based on the amount of electrical generation in 2011. The next unit update would occur in 2021 and would use 2015 to 2019 operating data. Since the unit would have no operating data for this time period it would no longer receive allocations. Under this procedure a unit that is retired in 2011 could receive allowances until 2025.

(e) Data used for energy generation baselines. In performing the unit energy output baseline calculations under pars. (a) to (d), the department shall use data reported by the CAIR designated representative to EPA under 40 CFR part 97, Subpart HH and available from the EPA and data reported by the CAIR renewable representative to the department under s. NR 432.07. If the required data is unavailable from the EPA, the department shall request the required data directly from the unit's CAIR designated representative. If the representative does not provide data within 30 days of the department's request, the department shall estimate the unit's baseline energy output using best available data.

(1m) STATE BASELINE. (a) Prior to 2011, the department shall establish the state baseline by summing the unit baselines calculated according to sub. (1) for all CAIR NO_x units listed in Table 1.

(b) In 2011 and annually thereafter, the department shall calculate an annual state baseline by summing the unit baselines calculated according to sub. (1) for all CAIR NO_x units and all CAIR renewable units.

Note: The state baseline is updated starting in 2011 annually to incorporate new units that have 5 years of operating data and have established a baseline under s. NR 432.03 (a) and (b). Once a new unit has established a baseline, it is eligible for allowances from the main allocation pool.

(2) ALLOWANCE ALLOCATION FOR UNITS WITH 5 OR MORE YEARS OF OPERATION DATA. (a) In 2007, and in 2011 and annually thereafter, the department shall allocate to all CAIR NO_x units and CAIR renewable units for which a unit baseline has been calculated under sub. (1), a total amount of CAIR NO_x allowances equal to 93% of the tons of NO_x emissions in the trading budget for Wisconsin in 40 CFR 97.140.

(b) The department shall allocate CAIR NO_x allowances to each unit in an amount determined by equation 3:

$$A_i = MAP \times \left(\frac{B_i}{B_s} \right)$$ Equation 3

where:

A_i is the annual allocation of CAIR NO_x allowances for unit i rounded to the nearest whole ton, adjusted by the department as needed to ensure that the sum of the allowances to all units does not exceed 93% of the trading budget in 40 CFR 97.140

MAP is the main allocation pool of CAIR NO_x allowances in tons which is the trading budget for Wisconsin in 40 CFR 97.140, minus the new unit set-aside established in sub. (3)

B_i is the unit baseline established under sub. (1) for unit i

B_s is the state baseline as determined under sub. (1m)

(3) ALLOCATIONS FOR UNITS WITH LESS THAN 5 YEARS OF OPERATING DATA. In 2009 and annually thereafter, the department shall allocate CAIR NO_x allowances to CAIR NO_x units for which a request is received under par. (b) and that commenced operation on or after January 1, 2001 and for which a baseline energy output cannot be determined under sub. (1), in accordance with the following procedures:

(a) For 2009 and each year thereafter, the department shall establish a new unit set-aside consisting of all CAIR NO_x al-

lowances available for new units in that year. The new unit set-aside in each year shall be equal to 7% of the amount of tons of NO_x emissions in the trading budget under 40 CFR 97.140 for Wisconsin.

(b) The CAIR designated representative of a CAIR NO_x unit that commenced operation on or after January 1, 2001, may submit to the department a request to be allocated CAIR NO_x allowances under this subsection, starting with 2009 or the first calendar year after the calendar year in which the CAIR NO_x unit commences commercial operation, whichever is later, and until the first calendar year for which the unit is eligible for and is allocated CAIR NO_x allowances under sub. (2). The CAIR NO_x allocation request shall be submitted on or before May 1 of the calendar year for which the CAIR NO_x allowances are requested and after the date on which the CAIR NO_x unit commences commercial operation.

(c) In a CAIR NO_x annual allocation request under par. (b), the CAIR designated representative may not request CAIR NO_x allowances exceeding the CAIR NO_x unit's total tons of NO_x emissions during the calendar year immediately before the calendar year of the request.

(d) The department shall review each CAIR NO_x annual allocation request submitted under par. (b) and allocate CAIR NO_x allowances for each calendar year as follows:

1. The department shall establish the maximum amount of new unit set-aside CAIR NO_x allowances a unit is eligible for based upon a request submitted under par. (b).

2. Before June 1 of each calendar year, the department shall determine the sum of all CAIR NO_x allowances established under subd. 1. for all new units in the calendar year.

3. If the amount of CAIR NO_x allowances in the new unit set-aside for the calendar year under par. (a) is greater than or equal to the sum determined under subd. 2., the department shall allocate the amount of CAIR NO_x allowances determined under subd. 1. to each CAIR NO_x unit for which an allocation request was submitted.

4. If the amount of the CAIR NO_x allowances in the new unit set-aside for the calendar year under par. (a) is less than the sum determined under subd. 2., the department shall allocate to each CAIR NO_x unit for which the department established a maximum amount under subd. 1. greater than zero, an amount determined using equation 4:

$$N_i = R_i \times \left(\frac{NUSA}{\sum_{j=1}^{k} R_j} \right)$$ Equation 4

where:

N_i is the annual allocation of CAIR NO_x set-aside allowances for new unit i for the calendar year rounded to the nearest whole ton, adjusted by the department as needed to ensure that the sum of the allowances to all units does not exceed 7% of the trading budget in 40 CFR 97.140

R_i is the amount of CAIR NO_x allowances the department determined unit i is eligible for under subd. 1.

NUSA is the new unit set-aside established under par. (a)

k is the number of units for which the department established an amount greater than 0 under subd. 1.

(e) The department shall notify each CAIR designated representative that submitted an allocation request under par. (b) of the amount of CAIR NO_x allowances allocated for the calendar year to the CAIR NO_x unit covered by the request.

(4) ALLOCATION OF REMAINING NEW UNIT SET-ASIDE ALLOWANCES. After completion of the procedures under sub. (3), any CAIR NO_x allowances remaining in the new unit set-aside for the calendar year shall be allocated to the CAIR NO_x units and CAIR renewable units that were allocated CAIR NO_x allowances under sub. (2) for the calendar year in an amount determined using equation 5:

$$X_i = U \times \left(\frac{A_i}{MAP} \right)$$ Equation 5

where:

X_i is the allocation of remaining CAIR NO_x new unit set-aside annual allowances for unit i rounded to the nearest whole ton, adjusted by the department as needed to ensure that the sum of the allowances to all units does not exceed the amount of U

U is the amount of unallocated CAIR NO_x new unit set-aside allowances in tons

A_i is the annual allocation of CAIR NO_x allowances for unit i calculated using equation 3

MAP is the main allocation pool of CAIR NO_x allowances in tons which is the trading budget for Wisconsin in 40 CFR 97.140 minus the new unit set-aside established in sub. (3)

(5) CAIR NO_x ALLOCATIONS FOR 2009 TO 2014. The CAIR NO_x allocations for 2009 to 2014 for individual CAIR NO_x units are listed in Table 1.

Table 1
CAIR NO_x Allocations for 2009 to 2014 by CAIR NO_x Unit
(in tons of CAIR NO_x allowances)

Unit Location	Unit Number	2009	2010	2011	2012	2013	2014
Alma	4	222	222	222	222	222	222
Alma	5	314	314	314	314	314	314
Bayfront	1	77	77	77	77	77	77
Bayfront	2	79	79	79	79	79	79
Bayfront	5	128	128	128	128	128	128
Blackhawk	3	9	9	9	9	9	9
Blackhawk	4	8	8	8	8	8	8
Blount Generating Station	3	5	5	5	5	5	5
Blount Generating Station	5	7	7	7	7	7	7
Blount Generating Station	6	9	9	9	9	9	9

Table 1 (Continued)
CAIR NO_x Allocations for 2009 to 2014 by CAIR NO_x Unit
(in tons of CAIR NO_x allowances)

Unit Location	Unit Number	2009	2010	2011	2012	2013	2014
Blount Generating Station	7	71	71	71	71	71	71
Blount Generating Station	8	167	167	167	167	167	167
Blount Generating Station	9	192	192	192	192	192	192
Blount Generating Station	11	2	2	2	2	2	2
Columbia	1	3035	3035	3035	3035	3035	3035
Columbia	2	2920	2920	2920	2920	2920	2920
Concord	1	12	12	12	12	12	12
Concord	2	14	14	14	14	14	14
Concord	3	11	11	11	11	11	11
Concord	4	10	10	10	10	10	10
Custer Energy Center	1	0	0	0	0	0	0
De Pere	ALL	123	123	123	123	123	123
Edgewater	3	335	335	335	335	335	335
Edgewater	4	1563	1563	1563	1563	1563	1563
Edgewater	5	2118	2118	2118	2118	2118	2118
Fitchburg	1	4	4	4	4	4	4
Fitchburg	2	4	4	4	4	4	4
French Island	3	4	4	4	4	4	4
French Island	4	4	4	4	4	4	4
Genoa	1	1778	1778	1778	1778	1778	1778
Germantown	30, 31	4	4	4	4	4	4
Germantown	32, 33	3	3	3	3	3	3
Germantown	34, 35	5	5	5	5	5	5
Germantown	36, 37	4	4	4	4	4	4
Germantown	38	24	24	24	24	24	24
Madgett	1	1884	1884	1884	1884	1884	1884
Manitowoc	6	139	139	139	139	139	139
Manitowoc	7	139	139	139	139	139	139
Manitowoc	8	139	139	139	139	139	139
Mirant/ Neenah	1	100	100	100	100	100	100
Mirant/ Neenah	2	100	100	100	100	100	100
Nelson Dewey	1	513	513	513	513	513	513
Nelson Dewey	2	506	506	506	506	506	506
Paris	1	17	17	17	17	17	17
Paris	2	21	21	21	21	21	21
Paris	3	22	22	22	22	22	22
Paris	4	15	15	15	15	15	15
Pleasant Prairie	20	3498	3498	3498	3498	3498	3498
Pleasant Prairie	21	3548	3548	3548	3548	3548	3548
Port Washington	1	218	218	218	218	218	218
Port Washington	2	190	190	190	190	190	190
Port Washington	3	221	221	221	221	221	221
Port Washington	4	219	219	219	219	219	219
Pulliam	3	100	100	100	100	100	100
Pulliam	4	122	122	122	122	122	122
Pulliam	5	265	265	265	265	265	265
Pulliam	6	376	376	376	376	376	376
Pulliam	7	466	466	466	466	466	466
Pulliam	8	759	759	759	759	759	759
Rock River	1	115	115	115	115	115	115
Rock River	2	95	95	95	95	95	95
Rock River	3	0	0	0	0	0	0
Rock River	5	14	14	14	14	14	14
Rock River	6	20	20	20	20	20	20
Sheepskin	1	1	1	1	1	1	1
Sheepskin	2	0	0	0	0	0	0
South Fond du Lac	1	29	29	29	29	29	29
South Fond du Lac	2	24	24	24	24	24	24
South Fond du Lac	3	18	18	18	18	18	18
South Fond du Lac	4	14	14	14	14	14	14
South Oak Creek	25	1163	1163	1163	1163	1163	1163

Table 1 (Continued)
CAIR NO_x Allocations for 2009 to 2014 by CAIR NO_x Unit
(in tons of CAIR NO_x allowances)

Unit Location	Unit Number	2009	2010	2011	2012	2013	2014
South Oak Creek	26	1189	1189	1189	1189	1189	1189
South Oak Creek	27	1604	1604	1604	1604	1604	1604
South Oak Creek	28	1617	1617	1617	1617	1617	1617
Stoneman	B1	17	17	17	17	17	17
Stoneman	B2	19	19	19	19	19	19
Valley Boiler 1	21	376	376	376	376	376	376
Valley Boiler 2	22	376	376	376	376	376	376
Valley Boiler 3	23	376	376	376	376	376	376
Valley Boiler 4	24	376	376	376	376	376	376
West Marinette	31	12	12	12	12	12	12
West Marinette	32	9	9	9	9	9	9
West Marinette	33	76	76	76	76	76	76
West Marinette	34	47	47	47	47	47	47
Weston	1	321	321	321	321	321	321
Weston	2	531	531	531	531	531	531
Weston	3	2000	2000	2000	2000	2000	2000
Weston	32	39	39	39	39	39	39
Wheaton	1	13	13	13	13	13	13
Wheaton	2	12	12	12	12	12	12
Wheaton	3	13	13	13	13	13	13
Wheaton	4	9	9	9	9	9	9
Wheaton	5	3	3	3	3	3	3
Wheaton	6	3	3	3	3	3	3
Whitewater Cogen Facility	CTG1	375	375	375	375	375	375
Whitewater Cogen Facility	STG1	157	157	157	157	157	157

History: CR 06-104: cr. Register July 2007 No. 619, eff. 8-1-07.

NR 432.04 Compliance supplement pool. In addition to the CAIR NO_x allowances allocated under s. NR 432.03, the department may allocate for calendar year 2009 only, additional allowances from the compliance supplement pool up to the amount designated by the EPA in 40 CFR 97.143 for Wisconsin for the purposes identified in this section.

(1) EARLY REDUCTION CREDITS. (a) The department may allocate CAIR NO_x allowances from the compliance supplement pool to a CAIR NO_x unit if the unit's CAIR designated representative demonstrates that it achieved early reductions of NO_x emissions. To be eligible for early reduction credits, the unit's CAIR designated representative shall demonstrate all of the following:

1. The CAIR NO_x unit's average annual NO_x emission rate for 2007 or 2008 is less than 0.25 lb/mmBtu based on heat input.

2. If the unit is included in a NO_x averaging plan under s. NR 409.065 (7) for 2007 or 2008, the NO_x averaging plan has an actual weighted average NO_x emission rate for 2007 or 2008 equal to or less than the actual weighted average NO_x emission rate for preceding year.

3. Compared to the preceding year, the CAIR NO_x unit achieves NO_x emission reductions in both 2007 and 2008.

(b) The CAIR designated representative of the unit may request early reduction credits, and allocation of CAIR NO_x allowances from the compliance supplement pool for early reduction credits, in accordance with the following:

1. The CAIR designated representative shall monitor and report the NO_x emissions rate and the heat input of the unit based on monitoring data required in accordance with 40 CFR part 97, Subpart HH in each calendar year for which early reduction credits are requested.

2. The CAIR designated representative of a CAIR NO_x unit shall submit to the department by July 31, 2009 a request for allocation of an amount of CAIR NO_x allowances from the compliance supplement pool. The request may not exceed the value determined using equation 6:

$$ER = \frac{(HI_{2007} \times \Delta EM_{2007}) + (HI_{2008} \times \Delta EM_{2008})}{2000}$$

Equation 6

where:

ER is the amount of CAIR NO_x allowances a CAIR designated representative may request based on early emission reductions in 2007 and 2008 rounded to the nearest ton

HI_{2007} is the total heat input to the unit for the calendar year 2007 in mmBtu

HI_{2008} is the total heat input to the unit for the calendar year 2008 in mmBtu

2000 is a conversion factor in lb/ton

ΔEM_{2007} and ΔEM_{2008} are the differences between the actual emission rates for 2007 and 2008 respectively and the target emission rate for early reductions in lbs NO_x/mmBtu. If the unit's actual average emission rate for the calendar year is greater than 0.25, ΔEM_{year} is equal to 0. If the unit's actual average emission rate for the calendar year is equal to or less than 0.25, then ΔEM_{year} is calculated using equation 7

$$\Delta EM_{year} = 0.25 - Actual_{year}$$ Equation 7

where:

$Actual_{year}$ is the unit's actual average emission rate for calendar year for 2007 or 2008 in lbs NO_x/mmBtu determined in accordance with 40 CFR part 97, Subpart HH

0.25 is the target emission rate for early reductions in lbs NO_x/mmBtu

(2) ELECTRIC RELIABILITY. The department may allocate CAIR NO_x allowances from the compliance supplement pool to any CAIR NO_x unit for which the unit's CAIR designated representative demonstrates that compliance with the CAIR NO_x allocation under s. NR 432.03, Table 1 for calendar year 2009 would create an undue risk to the reliability of electricity supply during 2009. The CAIR designated representative of the unit may request the allocation of CAIR NO_x allowances from the compliance supplement pool in order to avoid an undue risk to the reliability of electricity supply during 2009 in accordance with the following requirements:

(a) The CAIR designated representative of the CAIR NO_x unit shall submit to the department by July 31, 2009 a request for allocation of an amount of CAIR NO_x allowances from the compliance supplement pool not exceeding the minimum amount of CAIR NO_x allowances necessary to remove the undue risk to the reliability of electricity supply.

(b) In the request under par. (a), the CAIR designated representative of the CAIR NO_x unit shall demonstrate that, in the absence of an allocation to the unit in the amount of CAIR NO_x allowances requested, the unit's compliance with CAIR NO_x allocation under s. NR 432.03, Table 1 for calendar year 2009 would create an undue risk to the reliability of electricity supply during that year. This demonstration shall include a showing by the unit's CAIR designated representative that it would not be feasible to do both of the following:

1. Obtain a sufficient amount of electricity from other electricity generation facilities for compliance with the CAIR NO_x allocations under s. NR 432.03, Table 1 to prevent the undue risk.

2. Obtain under subs. (1) and (3), or otherwise obtain, a sufficient amount of CAIR NO_x allowances to prevent the undue risk.

(3) ALLOCATION PROCEDURE. The department shall review each request submitted under subs. (1) and (2) and shall allocate CAIR NO_x allowances for calendar year 2009 to CAIR NO_x units covered by the requests as follows:

(a) Upon receipt of each request, the department shall determine whether the amount of the CAIR NO_x allowances requested from the compliance supplement pool meets the requirements of sub. (1) or (2).

(b) If the amount of CAIR NO_x allowances in the compliance supplement pool is greater than or equal to the total amount of CAIR NO_x allowances in all requests submitted under subs. (1) and (2), the department shall allocate to each CAIR NO_x unit covered by the requests the amount of CAIR NO_x allowances requested, and determined eligible for under par. (a).

(c) If the state's compliance supplement pool has a smaller amount of CAIR NO_x allowances than the total amount of CAIR NO_x allowances in all requests submitted under subs. (1) and (2), as adjusted under par. (a), the department shall allocate CAIR NO_x allowances to each CAIR NO_x unit covered by the requests according to equation 8:

$$Z_i = Y_i \times \left(\frac{CSP}{\sum_{j=1}^{k} Y_j} \right)$$ Equation 8

where:

Z_i is the amount of CAIR NO_x allowances allocated to unit i from the state's compliance supplement pool rounded to the nearest whole ton, adjusted by the department as needed to ensure that the sum of the allowances to all units does not exceed the CSP

Y_i is the amount of CAIR NO_x allowances requested for unit i under subs. (1) and (2), as determined eligible under par. (a)

CSP is the amount of CAIR NO_x allowances in the state's compliance supplement pool as provided in 40 CFR 97.143

k is the number of units which the department deemed eligible for requests made under subs. (1) and (2)

(d) By November 15, 2009, the department shall determine the allocations under par. (b) or (c), as applicable. The department shall make available to the public each determination of CAIR NO_x allowances under par. (c) and shall provide an opportunity for submission of objections to the determination. Objections shall be limited to addressing whether the determination is in accordance with sub. (1) or (2) and par. (b) or (c) and data correction. Based on any objections, the department may adjust each determination to the extent necessary to ensure that it is in accordance with sub. (1) or (2) and par. (b) or (c) and the data is correct.

(e) By December 15, 2009, the department shall notify the administrator of the allocations made under par. (d).

History: CR 06-104: cr. Register July 2007 No. 619, eff. 8-1-07.

NR 432.05 CAIR NO_x ozone season allowance allocation. The department shall use the procedures in this section for calculating and allocating CAIR NO_x ozone season allowances for CAIR NO_x units and CAIR renewable units.

(1) UNIT BASELINES. (a) *Calculating baseline energy output.* The department shall calculate the baseline energy output of each CAIR NO_x unit and each CAIR renewable unit, in MWh according to the following equations as appropriate:

1. For a CAIR NO_x unit that is a cogeneration unit and that has operated for 5 or more consecutive calendar years, by using one of the following equations:

a. Use equation 1a if the unit is the only unit serving a generator or, if more than one unit serves the same generator and unit-level data for equation 9a is available for all units:

$$B = GE_{avg} + \left(\frac{TE_{avg}}{3.4} \right)$$ Equation 9a

where:

B is the unit baseline energy output made available by the cogeneration unit in MWh

GE_{avg} is the average of the 3 highest annual amounts of the unit's ozone season gross electric output in MWh over the 5-year period identified in par. (b)

TE_{avg} is the average of the 3 highest annual amounts of the unit's ozone season useful thermal energy in mmBtu over the 5-year period identified in par. (b)

3.4 is a conversion factor in mmBtu/MWh

b. Use equation 9b if more than one unit serves the same generator and unit-level data for equation 9a is not available for all units:

$$B_i = \left(GE_{Gen} + \frac{TE_T}{3.4} \right) \times \left(\frac{NC_i}{\sum_{j=1}^{n} NC_j} \right)$$ Equation 9b

where:

B_i is the baseline energy output made available by cogeneration unit i in MWh

GE_{Gen} is the average of the 3 highest annual amounts of the ozone season gross electric output in MWh for the generator served over the 5-year period identified in par. (b)

TE_T is the average of the 3 highest annual amounts of ozone season useful thermal energy in mmBtu for the generator served over the 5-year period defined in par. (b)

3.4 is a conversion factor in mmBtu/MWh

NC_i is the nameplate capacity of unit i

n is the number of units serving the same generator

2. For a CAIR NO_x unit that is not a cogeneration unit and that has operated for 5 or more consecutive calendar years and for a CAIR renewable unit that has operated for 5 or more consecutive calendar years, by using one of the following equations as appropriate:

a. Use equation 10a if the unit is the only unit serving a generator or, if more than one unit serves the same generator and unit-level data for equation 10a is available for all units:

$$B = GE_{avg}$$ Equation 10a

where:

B is the unit baseline energy output made available by the CAIR NO_x unit or the CAIR renewable unit in MWh

GE_{avg} is the average of the 3 highest annual amounts of the unit's ozone season gross electric output in MWh over the 5-year period identified in par. (b)

b. Use equation 10b if more than one unit serves the same generator and unit-level data for equation 10a is not available for all units:

$$B_i = GE_{Gen} \times \left(\frac{NC_i}{\sum_{j=1}^{n} NC_j} \right)$$ Equation 10b

where:

B_i is the baseline energy output made available by CAIR NO_x unit i or CAIR renewable unit i in MWh

GE_{Gen} is the average of the 3 highest annual amounts of the ozone season gross electric output in MWh for the generator served over the 5-year period identified in par. (b)

NC_i is the nameplate capacity of unit i

n is the number of units serving the same generator

(b) *Periodic updates of baseline energy output for units with more than 5 years operating data.* The department shall use the procedures in this paragraph for calculating the unit baseline energy output for each CAIR NO_x unit or CAIR renewable unit which has more than 5 years of operating data.

1. In 2007, the department shall calculate the baseline energy output for each CAIR NO_x unit for 2009 to 2014 allowances using data for the ozone seasons 2000 to 2004.

2. On or before May 1, 2011, and on or before May 1 of every fifth year thereafter, the department shall calculate the baseline energy output for each CAIR NO_x unit and each CAIR renewable unit for the next 5-year allocation period using data from the 5 ozone season period beginning 9 years before the first year of the allocation period and ending 5 years before the first year of the allocation period.

Note: For example in 2021, unit baseline energy output for the calculation of allocation for 2025 to 2029 allowances will be calculated using ozone season data from the years 2016 to 2020. In 2026, unit baseline energy output for the calculation of the allocation for 2030 to 2034 will be calculated using ozone season data from 2021 to 2025.

(c) *Baseline energy output for new units and units achieving 5 years of operating data for the first time.* The department shall use the procedures in this paragraph for calculating the unit baseline energy output for each CAIR NO_x unit or CAIR renewable unit which have only 5 years of operating data.

1. On or before May 1, 2011, the department shall calculate the baseline energy output for each CAIR NO_x unit and each CAIR renewable unit that commences operation on or after January 1, 2001 and that has operating data for the years 2006 to 2010 for 2015 to 2019 allowances using data for ozone seasons 2006 to 2010.

2. On or before May 1, 2012, and on or before May 1 of every year thereafter, the department shall calculate the unit baseline energy output for each CAIR NO_x unit and each CAIR renewable unit that has been operating for its first 5 consecutive years, using the first 5 ozone seasons of operating data. Once the unit's baseline energy output has been established, the CAIR NO_x unit or CAIR renewable unit's baseline energy output shall be updated according to par. (b).

Note: Starting in 2011, and every year thereafter, new units that commence operation on or after January 1, 2001 will have their unit baseline energy output calculated once the unit has 5 consecutive years of operating data. The 5 years of data do not have to be full years of data. Once the unit has 5 or more years of operating data, this unit is then incorporated into the state baselines calculated in s. NR 432.03 (1m) and receives allocations from the main allocation pool under s. NR 432.03 (2). These new units are incorporated into the main allocation pool on a yearly basis.

(d) *Baseline energy output for retired units.* If a unit is retired in any year, the department shall calculate the baseline energy output according to par. (b). If a unit only operates a portion of the year, the data for that portion shall constitute the unit's data for that year.

Note: The following is an example of how a retired unit's baseline energy output is calculated. A unit is retired in 2011. In 2011, unit baselines are updated using 2006 to 2010 ozone season data that will be used to calculate allocations for 2015 to 2019. For 2015 to 2019 allocations, the retired unit would receive all allowances based upon its unit baseline for 2006 to 2010 ozone season operating data even though it is no longer operating. In 2016, the next unit baseline updating year, the baseline for the unit would be determined using the most recent 5 years of ozone season data, 2011 to 2015. The 2016 updated baseline would be used to determine allocations for 2020 to 2025. If the unit had some operating data in 2011, it would receive minimal allowances in 2020 to 2025 based on the amount of electrical generation in the ozone season in 2011. The next unit update would occur in 2021 and would use 2015 to 2019 ozone season operating data. Since the unit would have no operating data for this time period it would no longer receive allocations. Under this procedure a unit that is retired in 2011 could receive allowances until 2025.

(e) *Data used for energy generation baselines.* In performing the unit energy output baseline calculations under pars. (a) to (d), the department shall use data reported by the CAIR designated representative to EPA under 40 CFR part 97, Subpart HH and available from the EPA and data reported by the CAIR renewable representative to the department under s. NR 432.07. If the required data is unavailable from the EPA, the department shall request the required data directly from the unit's CAIR designated representative. If the representative does not provide data within 30 days of the department's request, the department shall estimate the unit's baseline energy output using best available data.

(1m) STATE BASELINE. (a) Prior to 2011, the department shall establish the state baseline by summing the unit baselines calculated according to sub. (1) for all CAIR NO_x units listed in Table 2.

(b) In 2011 and annually thereafter, the department shall calculate an ozone season state baseline by summing the unit baselines calculated according to sub. (1) for all CAIR NO_x units and all CAIR renewable units.

Note: The state baseline is updated starting in 2011 annually to incorporate new units that have 5 years of operating data and have established a baseline under s. NR

432.03 (a) and (b). Once a new unit has established a baseline, it is eligible for allowances from the main allocation pool.

(2) ALLOWANCE ALLOCATION FOR UNITS WITH 5 OR MORE YEARS OF OPERATION DATA. (a) In 2007, and in 2011 and annually thereafter, the department shall allocate to all CAIR NO_x units and CAIR renewable units for which a unit baseline has been calculated under sub. (1), a total amount of CAIR NO_x ozone season allowances equal to 93% of the tons of NO_x emissions in the trading budget for Wisconsin in 40 CFR 97.340.

(b) The department shall allocate CAIR NO_x ozone season allowances to each unit in an amount determined by equation 11:

$$A_i = MAP \times \left(\frac{B_i}{B_s} \right)$$

Equation 11

where:

A_i is the annual allocation of CAIR NO_x ozone season allowances for unit i rounded to the nearest whole ton, adjusted by the department as needed to ensure that the sum of the allowances to all units does not exceed 93% of the trading budget in 40 CFR 97.340

MAP is the main allocation pool of CAIR NO_x ozone season allowances in tons which is the trading budget for Wisconsin in 40 CFR 97.340, minus the new unit set-aside established in sub. (3)

B_i is the unit baseline established under sub. (1) for unit i

B_s is the state baseline as determined under sub. (1m)

(3) ALLOCATIONS FOR UNITS WITH LESS THAN 5 YEARS OF OPERATING DATA. In 2009 and annually thereafter, the department shall allocate CAIR NO_x ozone season allowances to CAIR NO_x units for which a request is received under par. (b) and that commenced operation on or after January 1, 2001 and for which a baseline energy output cannot be determined under sub. (1), in accordance with the following procedures:

(a) For 2009 and each year thereafter, the department shall establish a new unit set-aside consisting of all CAIR NO_x ozone season allowances available for new units in that year. The new unit set-aside in each year shall be equal to 7% of the amount of tons of NO_x emissions in the trading budget under 40 CFR 97.340 for Wisconsin.

(b) The CAIR designated representative of a CAIR NO_x unit that commenced operation on or after January 1, 2001, may submit to the department a request to be allocated CAIR NO_x ozone season allowances under this subsection, starting with 2009 or the first calendar year after the calendar year in which the CAIR NO_x unit commences commercial operation, whichever is later, and until the first calendar year for which the unit is eligible for and is allocated CAIR NO_x ozone season allowances under sub. (2). The CAIR NO_x ozone season allocation request shall be submitted on or before May 1 of the calendar year for which the CAIR NO_x ozone season allowances are requested and after the date on which the CAIR NO_x unit commences commercial operation.

(c) In a CAIR NO_x ozone season allocation request under par. (b), the CAIR designated representative may not request CAIR NO_x ozone season allowances exceeding the CAIR NO_x unit's total tons of NO_x emissions during the calendar year immediately before the calendar year of the request.

(d) The department shall review each CAIR NO_x ozone season allocation request submitted under par. (b) and allocate CAIR NO_x ozone season allowances for each calendar year as follows:

1. The department shall establish the maximum amount of new unit set-aside CAIR NO_x ozone season allowances a unit is eligible for based upon a request submitted under par. (b).

2. Before June 1 of each calendar year, the department shall determine the sum of all CAIR NO_x ozone season allowances established under subd. 1. for all new units in the calendar year.

3. If the amount of CAIR NO_x ozone season allowances in the new unit set-aside for the calendar year under par. (a) is greater than or equal to the sum determined under subd. 2., the department shall allocate the amount of CAIR NO_x ozone season allowances determined under subd. 1. to each CAIR NO_x unit for which an allocation request was submitted.

4. If the amount of the CAIR NO_x ozone season allowances in the new unit set-aside for the calendar year under par. (a) is less than the sum determined under subd. 2., the department shall allocate to each CAIR NO_x unit for which the department established a maximum amount under subd. 1. greater than zero, an amount determined using equation 12:

$$N_i = R_i \times \left(\frac{NUSA}{\sum_{j=1}^{k} R_j} \right)$$

Equation 12

where:

N_i is the annual allocation of CAIR NO_x ozone season set-aside allowances for new unit i for the calendar year rounded to the nearest whole ton, adjusted by the department as needed to ensure that the sum of the allowances to all units does not exceed 7% of the trading budget in 40 CFR 97.340

R_i is the amount of CAIR NO_x ozone season allowances the department determined unit i is eligible for under subd. 1.

NUSA is the new unit set-aside established under par. (a)

k is the number of units for which the department established an amount greater than 0 under subd. 1.

(e) The department shall notify each CAIR designated representative that submitted an allocation request under par. (b) of the amount of CAIR NO_x ozone season allowances allocated for the calendar year to the CAIR NO_x unit covered by the request.

(4) ALLOCATION OF REMAINING NEW UNIT SET-ASIDE ALLOWANCES. After completion of the procedures under sub. (3), any CAIR NO_x ozone season allowances remaining in the new unit set-aside for the calendar year shall be allocated to the CAIR NO_x units and CAIR renewable units that were allocated CAIR NO_x ozone season allowances under sub. (2) for the calendar year in an amount determined using equation 13:

$$X_i = U \times \left(\frac{A_i}{MAP} \right)$$

Equation 13

where:

X_i is the allocation of remaining CAIR NO_x ozone season new unit set-aside ozone season allowances for unit i rounded to the nearest whole ton, adjusted by the department as needed to ensure that the sum of the allowances to all units does not exceed the amount of U

U is the amount of unallocated CAIR NO_x ozone season new unit set-aside allowances in tons

A_i is the annual allocation of CAIR NO_x ozone season allowances for unit i calculated using equation 11

MAP is the main allocation pool of CAIR NO_x ozone season allowances in tons which is the trading budget for Wisconsin in 40 CFR 97.340 minus the new unit set-aside established in sub. (3)

(5) CAIR NO_x OZONE SEASON ALLOCATIONS FOR 2009 TO 2014. The CAIR NO_x ozone season allocations for 2009 to 2014 for individual CAIR NO_x units are listed in Table 2.

Table 2
CAIR NO_x Ozone Season Allocations for 2009 to 2014 by CAIR NO_x Unit
(in tons of CAIR NO_x ozone season allowances)

Unit Location	Unit Number	2009	2010	2011	2012	2013	2014
Alma	4	93	93	93	93	93	93
Alma	5	128	128	128	128	128	128
Bayfront	1	33	33	33	33	33	33
Bayfront	2	34	34	34	34	34	34
Bayfront	5	55	55	55	55	55	55
Blackhawk	3	7	7	7	7	7	7
Blackhawk	4	7	7	7	7	7	7
Blount Generating Station	3	3	3	3	3	3	3
Blount Generating Station	5	4	4	4	4	4	4
Blount Generating Station	6	6	6	6	6	6	6
Blount Generating Station	7	31	31	31	31	31	31
Blount Generating Station	8	75	75	75	75	75	75
Blount Generating Station	9	91	91	91	91	91	91
Blount Generating Station	11	1	1	1	1	1	1
Columbia	1	1407	1407	1407	1407	1407	1407
Columbia	2	1385	1385	1385	1385	1385	1385
Concord	1	8	8	8	8	8	8
Concord	2	9	9	9	9	9	9
Concord	3	7	7	7	7	7	7
Concord	4	8	8	8	8	8	8
Custer Energy Center	1	0	0	0	0	0	0
De Pere	ALL	62	62	62	62	62	62
Edgewater	3	149	149	149	149	149	149
Edgewater	4	740	740	740	740	740	740
Edgewater	5	963	963	963	963	963	963
Fitchburg	1	2	2	2	2	2	2
Fitchburg	2	2	2	2	2	2	2
French Island	3	2	2	2	2	2	2
French Island	4	2	2	2	2	2	2
Genoa	1	757	757	757	757	757	757
Germantown	30, 31	1	1	1	1	1	1
Germantown	32, 33	1	1	1	1	1	1
Germantown	34, 35	1	1	1	1	1	1
Germantown	36, 37	0	0	0	0	0	0
Germantown	38	15	15	15	15	15	15
Madgett	1	825	825	825	825	825	825
Manitowoc	6	60	60	60	60	60	60
Manitowoc	7	60	60	60	60	60	60
Manitowoc	8	60	60	60	60	60	60
Mirant/ Neenah	1	62	62	62	62	62	62
Mirant/ Neenah	2	60	60	60	60	60	60
Nelson Dewey	1	234	234	234	234	234	234
Nelson Dewey	2	228	228	228	228	228	228
Paris	1	12	12	12	12	12	12
Paris	2	14	14	14	14	14	14
Paris	3	15	15	15	15	15	15
Paris	4	10	10	10	10	10	10
Pleasant Prairie	20	1543	1543	1543	1543	1543	1543
Pleasant Prairie	21	1594	1594	1594	1594	1594	1594
Port Washington	1	108	108	108	108	108	108
Port Washington	2	104	104	104	104	104	104
Port Washington	3	111	111	111	111	111	111
Port Washington	4	94	94	94	94	94	94
Pulliam	3	45	45	45	45	45	45

Table 2 (Continued)
CAIR NO_x Ozone Season Allocations for 2009 to 2014 by CAIR NO_x Unit
(in tons of CAIR NO_x ozone season allowances)

Unit Location	Unit Number	2009	2010	2011	2012	2013	2014
Pulliam	4	53	53	53	53	53	53
Pulliam	5	114	114	114	114	114	114
Pulliam	6	154	154	154	154	154	154
Pulliam	7	221	221	221	221	221	221
Pulliam	8	314	314	314	314	314	314
Rock River	1	52	52	52	52	52	52
Rock River	2	54	54	54	54	54	54
Rock River	3	0	0	0	0	0	0
Rock River	5	6	6	6	6	6	6
Rock River	6	8	8	8	8	8	8
Sheepskin	1	1	1	1	1	1	1
Sheepskin	2	0	0	0	0	0	0
South Fond du Lac	1	16	16	16	16	16	16
South Fond du Lac	2	14	14	14	14	14	14
South Fond du Lac	3	10	10	10	10	10	10
South Fond du Lac	4	7	7	7	7	7	7
South Oak Creek	25	547	547	547	547	547	547
South Oak Creek	26	513	513	513	513	513	513
South Oak Creek	27	686	686	686	686	686	686
South Oak Creek	28	735	735	735	735	735	735
Stoneman	B1	8	8	8	8	8	8
Stoneman	B2	9	9	9	9	9	9
Valley Boiler 1	21	83	83	83	83	83	83
Valley Boiler 2	22	83	83	83	83	83	83
Valley Boiler 3	23	83	83	83	83	83	83
Valley Boiler 4	24	83	83	83	83	83	83
West Marinette	31	5	5	5	5	5	5
West Marinette	32	3	3	3	3	3	3
West Marinette	33	33	33	33	33	33	33
West Marinette	34	20	20	20	20	20	20
Weston	1	137	137	137	137	137	137
Weston	2	233	233	233	233	233	233
Weston	3	849	849	849	849	849	849
Weston	32	21	21	21	21	21	21
Wheaton	1	5	5	5	5	5	5
Wheaton	2	5	5	5	5	5	5
Wheaton	3	6	6	6	6	6	6
Wheaton	4	4	4	4	4	4	4
Wheaton	5	1	1	1	1	1	1
Wheaton	6	1	1	1	1	1	1
Whitewater Cogen Facility	CTG1	154	154	154	154	154	154
Whitewater Cogen Facility	STG1	68	68	68	68	68	68

History: CR 06-104: cr. Register July 2007 No. 619, eff. 8-1-07.

NR 432.06 Timing requirements for allocations of CAIR NO_x allowances and CAIR NO_x ozone season allowances. (1) ALLOCATIONS FOR 2009 TO 2014. By April 30, 2007 or within 30 days after August 1, 2007, the department shall notify the administrator of the allocations of CAIR NO_x allowances and CAIR NO_x ozone season allowances for 2009 to 2014 for the units listed in Tables 1 and 2.

(2) ALLOCATIONS FOR 2015 AND LATER YEARS FOR UNITS WITH 5 OR MORE YEARS OF OPERATING DATA. (a) By June 1, 2011 and June 1 of each year thereafter, the department shall determine the allocations of CAIR NO_x allowances and CAIR NO_x ozone season allowances, in accordance with ss. NR 432.03 (1) and (2) and 432.05 (1) and (2), which shall apply to CAIR NO_x units and CAIR renewable units in the 4th year after the determination.

Note: For example, in 2011, the department shall determine the allocations applicable in 2015 and in 2012, allocations for 2016.

(b) By July 31, 2011 and July 31 of each year thereafter, the department shall notify the administrator of each unit's allocation of CAIR NO_x allowances and CAIR NO_x ozone season allowances under par. (a) for the fourth year after the year of the notification.

(3) ALLOCATIONS FOR UNITS WITH LESS THAN 5 YEARS OF OPERATING DATA. (a) By June 1, 2009 and June 1 of each year thereafter, the department shall determine the allocations of CAIR NO_x allowances and CAIR NO_x ozone season allowances, in accordance with ss. NR 432.03 (1), (3) and (4) and 432.05 (1), (3) and (4), for the year of the applicable determination under this section.

(b) By July 31, 2009 and July 31 of each year thereafter, the department shall notify the administrator of each unit's allocation of CAIR NO_x allowances and CAIR NO_x ozone season allowances under par. (a) for the year of the notification.

(4) PUBLIC COMMENTS. On or before June 15, 2009 and on or before June 15 of each year thereafter, the department shall make available to the public each determination of CAIR NO_x allowances and CAIR NO_x ozone season allowances under sub. (1), (2) or (3) and shall provide an opportunity for submission of objections to the determination within 20 days. Objections shall be limited to addressing whether the determination is in accordance with ss. NR 432.03 and 432.05. Based on any objections, the department may adjust the determination to the extent necessary to ensure that it is in accordance with ss. NR 432.03 and 432.05.

History: CR 06-104: cr. Register July 2007 No. 619, eff. 8-1-07.

NR 432.07 CAIR renewable units. (1) CAIR RENEWABLE REPRESENTATIVE. (a) The owner and operator of each CAIR renewable unit shall select one and only one CAIR renewable representative who shall represent the CAIR renewable unit with regards to all matters concerning the unit under the CAIR NO_x annual trading program and the CAIR NO_x ozone season trading program.

(b) The CAIR renewable representative of the CAIR renewable unit shall be selected by an agreement binding on the owners and operators of the unit and shall act in accordance with the certifying statements found in par. (c).

(c) The CAIR renewable representative for the CAIR renewable unit shall submit to the department a certificate of representation. The certificate of representation shall include all of the following:

1. Identification of CAIR renewable unit for which the certificate of representation is being submitted, including identification and nameplate capacity of each generator served by the unit.

2. The name, address, e-mail address, telephone number and facsimile transmission number of the CAIR renewable representative.

3. A list of the owners and operators of the CAIR renewable unit.

4. The following certificate statements by the CAIR renewable representative:

a. "I certify that I was selected as the CAIR renewable representative, by an agreement binding on the owners and operators of the CAIR renewable unit."

b. "I certify that I have all the necessary authority to carry out my duties and responsibilities under the CAIR NO_x annual trading program and the CAIR NO_x ozone season trading program on behalf of the owners and operators of the CAIR renewable unit and that each owner and operator shall be fully bound by my representations, actions, inactions or submissions."

c. "I certify that the owners and operators of the CAIR renewable unit shall be bound by any order issued to me by the administrator, the department or a court regarding the CAIR renewable unit."

d. Where there are multiple holders of legal or equitable title to, or a leasehold interest in, a CAIR renewable unit, or where a utility or industrial customer purchases power from a CAIR renewable unit under a life-of-the-unit, firm power contractual arrangement, "I certify that: I have given a written notice of my selection as the CAIR renewable representative, and of the agreement by which I was selected to each owner and operator of the CAIR renewable unit; and any CAIR NO_x allowances and CAIR NO_x ozone season allowances and the proceeds of transactions involving CAIR NO_x allowances and CAIR NO_x ozone season allowances will be deemed to be held or distributed in proportion to each holder's legal, equitable, leasehold, or contractual reservation or entitlement, except that, if such multiple holders have expressly provided for a different distribution of CAIR NO_x allowances or CAIR NO_x ozone season allowances by contract, the CAIR NO_x allowances, CAIR NO_x ozone season allowances and the proceeds of transactions involving CAIR NO_x allowances and CAIR NO_x ozone season allowances will be deemed to be held or distributed in accordance with the contract."

5. The signature of the CAIR renewable representative and the date signed.

(d) Upon receipt by the department of a complete certificate of representation under par. (c), the CAIR renewable representative of the CAIR renewable unit shall represent and by his or her representations, actions, inactions or submissions, legally bind each owner and operator of the CAIR renewable unit in all matters pertaining to the CAIR NO_x trading program and the CAIR NO_x ozone season trading program, notwithstanding any agreement between the CAIR renewable representative and owners and operators of the CAIR renewable unit.

(2) ESTABLISHMENT OF GENERAL ACCOUNT. The CAIR renewable representative shall establish a general account, for CAIR NO_x allowances pursuant to 40 CFR 97.151 (b) and for CAIR NO_x ozone season allowances pursuant to 40 CFR 97.351 (b) prior to submitting a request under s. NR 432.03 or 432.05 for CAIR NO_x allowances or CAIR NO_x ozone season allowances.

(3) AGGREGATION OF RENEWABLE UNITS. If renewable units are aggregated pursuant to s. 299.83, Stats., the aggregated renewable units shall have only one CAIR renewable representative.

(4) REQUESTS FOR CAIR NO_x ALLOWANCES AND CAIR NO_x OZONE SEASON ALLOWANCES. On or before May 1, 2011, or on or before May 1 of each year for which CAIR NO_x allowances and CAIR NO_x ozone season allowances are being requested, the CAIR renewable representative shall submit a request to the department for the allowances. The request shall contain specific unit information, including the monthly gross electrical output data to be used to calculate the unit's baseline energy output in ss. NR 432.03 and 432.05.

(5) MULTIPLE SUBMISSIONS. The department may not act as a mediator in situations where more than one entity submits a request for CAIR NO_x allowances or CAIR NO_x ozone season allowances based upon its ownership or operation interest in a CAIR renewable unit. If more than one entity submits an application for allowances for the same CAIR renewable unit for the same control period and the competing applications are not withdrawn, the department shall reject all the applications.

History: CR 06-104: cr. Register July 2007 No. 619, eff. 8-1-07.

NR 432.08 Superior environmental performance. (1) The owner or operator of a CAIR NO_x unit or a CAIR renewable unit may voluntarily perform activities that constitute superior environmental performance as defined in s. 299.83 (1) (g), Stats., for participation in Tier II of the environmental results program under ss. 299.80 and 299.83, Stats. These voluntary activities may include any of the following:

(a) Agreeing never to use a specified amount of CAIR NO_x allowances or CAIR NO_x ozone season allowances.

(b) Agreeing not to use a specified amount of CAIR NO_x allowances or CAIR NO_x ozone season allowances prior to a specified future year.

(c) Agreeing to reduce emissions of other pollutants such as sulfur dioxides, mercury, carbon dioxide or heavy metals beyond levels required by federal and state laws.

(2) The level of environmental benefit provided by an entity that agrees to never use or to defer the use of a specified amount of CAIR NO_x allowances or CAIR NO_x ozone season allowances shall be based on the number of CAIR NO_x allowances or CAIR

NO_x ozone season allowances involved and the number of years in which the allowances may not be used.

(3) The environmental benefit provided by the reduction of emissions of pollutants other than NO_x shall be based on the types of pollutants reduced and the amount of reduction beyond federal and state requirements.

(4) In the context of a participation contract negotiated under the authority of s. 299.83 (6), Stats., or cooperative agreements negotiated under the authority of s. 299.80, Stats., reductions in recordkeeping, reporting or other administrative requirements related to state environmental regulations may be appropriate incentives for the activities described in sub. (1). The amount of flexibility provided shall be proportional to the environmental benefits provided by the participant.

History: CR 06-104: cr. Register July 2007 No. 619, eff. 8-1-07.