

COMMONWEALTH OF MASSACHUSETTS

DEPARTMENT OF ENVIRONMENTAL PROTECTION

310 CMR 7.00 AIR POLLUTION CONTROL REGULATIONS

310 CMR 7.27 NO_x ALLOWANCE PROGRAM

7.27: NO_x Allowance Program

(1) Purpose and Scope.

(a) The purpose of 310 CMR 7.27 is to control emissions of nitrogen oxides (NO_x) during the summertime ozone season (May 1 through September 30 of each year). 310 CMR 7.27 accomplishes this by establishing an emissions budget for NO_x during each ozone season, implemented through a NO_x allowance program beginning May 1, 1999.

(b) The Massachusetts NO_x emission budget was calculated by applying the control requirements of the September 1994 Ozone Transport Commission's Memorandum of Understanding (OTC MOU) to the 1990 baseline emissions level adopted by the Ozone Transport Commission on June 13, 1995.

(c) Any additional NO_x control requirements beginning on May 1, 2003, may be modified before that date, if modeling and other analyses show that this program, and controls on volatile organic compound (VOC) emissions, will achieve attainment of the ozone National Ambient Air Quality Standard across the Ozone Transport Region. The Department has reserved 310 CMR 7.27(3)(b) to reflect any modifications needed to the Massachusetts NO_x emission budget after 2003.

(d) The Department will allocate NO_x allowances for each ozone season as described in 310 CMR 7.27(6) equal to the total Massachusetts NO_x emissions budget in tons.

(e) NO_x allowances from other states maybe used to comply with 310 CMR 7.27, provided the other state has adopted and implemented a NO_x allowance program consistent with 310 CMR 7.27 as determined by the Department.

(f) NO_x allowances allocated by the Department may be used to comply with NO_x allowance programs of other states, provided the other state has adopted and implemented a program consistent with 310 CMR 7.27 as determined by the Department.

(2) Definitions. The definitions in 310 CMR 7.00 apply to 310 CMR 7.27. However, the following terms have the following meanings when they appear in 310 CMR 7.27. If

a term is defined in 310 CMR 7.00 and in 310 CMR 7.27(2), the definition in 310 CMR 7.27(2) applies.

Account number means the identification number given by the Administrator to an account in the NOx Allowance Tracking System (NATS).

Account means a record in the NOx Allowance Tracking System where allowances are recorded, and includes both compliance accounts and general accounts.

Affected unit means a fossil fuel fired boiler or indirect heat exchanger with a maximum heat input capacity of 250 MMBtu/Hour or more which operated at any time in calendar year 1990. The term affected unit is used only to establish the Massachusetts 1999 through 2002 NOx emissions budget.

Allocate or Allocation means the assignment of allowances by the Department to a NOx Allowance Tracking System account, as recorded by the Administrator

Allocation period means any time period for which allowances are allocated during the period 1999 through 2002.

Allowance means a limited authorization to emit one ton of NOx during a specified control period or any control period thereafter. An allowance is usable only for complying with the provisions of 310 CMR 7.27. The use of an allowance after its initial control period is subject to the terms and conditions for use of banked allowances in 310 CMR 7.27(9). All allowances are allocated, transferred, or used as whole allowances. To determine the number of whole allowances, the number of allowances is rounded down for decimals less than 0.5 and rounded up for decimals of 0.5 or greater.

Allowance deduction means the withdrawal of allowances for permanent retirement by the Administrator from a NOx Allowance Tracking System account pursuant to 310 CMR 7.27(14).

Allowance transfer means the transfer to another account of one or more allowances by whatever means, including but not limited to purchase, trade, auction, or gift, in accordance with the procedures established in 310 CMR 7.27(8).

Allowance transfer deadline means midnight of December 31 of a given calendar year. It is the deadline by which allowances must have been transferred, or have been requested to be transferred, to a compliance account to comply with the requirements of 310 CMR 7.27 for the control period of that year.

Alternative monitoring system means a system, or component of a system, designed to provide direct or indirect data on mass emissions per time period, pollutant concentrations, or volumetric flow as provided for in 310 CMR 7.27(11).

Authorized Account Representative (AAR) means the person who is authorized, in writing, to transfer or otherwise manage allowances for an account, as well as to certify any other reports to the NOx Allowance Tracking System (NATS) and the NOx Emissions Tracking System (NETS).

Banked allowance means an allowance which is not used to reconcile emissions in the designated year of allocation but which is carried forward and marked in the compliance or general account as "banked".

Banking means the retention of allowances from one control period for use in a future control period.

Baseline means the NOx emission inventory approved by the Ozone Transport Commission on June 13, 1995, as the official 1990 baseline emissions for May 1 through September 30, 1990 for purposes of 310 CMR 7.27.

Budget or emissions budget means the allowable emissions of NOx per season in tons. It is the maximum amount of NOx emissions which may be released from all budget units during a given control period.

Budget unit means a fossil fuel fired boiler or indirect heat exchanger with a maximum rated heat input capacity of 250 MMBtu/Hour, or more; an electric generating unit with a rated output of 15 MW, or more; any unit which has opted in to 310 CMR 7.27 when the Department approves the opt in application; and any unit the Department chooses to include in 310 CMR 7.27 under 310 CMR 7.27(4)(d).

Compliance account means the account for each budget unit in the NOx Allowance Tracking System which holds allowances used to determine compliance with 310 CMR 7.27.

Continuous Emissions Monitoring System (CEMS) means the equipment required by 310 CMR 7.27(11) used to sample, analyze, and measure emissions, and which provides a permanent record of emissions expressed in pounds per million British Thermal Units (Btu) or ppm, and pounds per day. The following systems are component parts included in a continuous emissions monitoring system:

- Nitrogen oxides pollutant concentration monitor
- Diluent gas monitor (oxygen or carbon dioxide)
- A data acquisition and handling system
- Flow monitoring systems (where appropriate)

Control period means the period beginning May 1 of each calendar year and ending on September 30 of the same year, inclusive.

Current year means the calendar year in which the action takes place or for which an allowance was originally designated. For example, an allowance allocated for use in

1999 which goes unused and becomes a banked allowance on Jan 1, 2000 can be used in the "Current Year" 2000 or later, subject to the conditions for banked allowance use, as stated in 310 CMR 7.27(9).

Curtailment means a reduction from the representative utilization or capacity factor at a budget unit.

Early Reduction Credit means credit for NO_x emission reductions achieved during the control periods of 1997 or 1998 and approved by the Department under 310 CMR 7.27(9).

Electric generating unit means any fossil fuel fired combustion unit of 15 MW electric generating capacity or greater which provides electricity for sale or use.

Excess emissions means emissions of NO_x reported by a budget unit during the control period, rounded to the nearest whole ton, which are greater than the number of current year and banked allowances in the budget unit's NO_x Allowance Tracking System compliance account at the allowance transfer deadline for that year.

Fossil fuel means natural gas, petroleum, coal or any form of solid, liquid or gaseous fuel derived wholly, or in part, from such material.

Fossil fuel fired means the combustion of fossil fuel or any derivative of fossil fuel alone, or, in combination with any other fuel, if fossil fuel comprises 51% or greater of the annual heat input on a Btu basis.

General account means an account in the NO_x Allowance Tracking System (NATS) that is not a compliance account.

Heat input means heat derived from the combustion of fuel in a budget unit and does not include the heat derived from preheated combustion air, recirculated flue gas, or exhaust from other sources.

Indirect heat exchanger means combustion equipment in which the flame or the products of combustion are separated from any contact with the principal material in the process by metallic or refractory walls. It includes, but is not limited to, steam boilers, vaporizers, melting pots, heat exchangers, column reboilers, fractioning column feed preheaters, reactor feed preheaters, fuel-fired reactors such as steam hydrocarbon reformer heaters and pyrolysis heaters.

Maximum heat input capacity means the maximum amount of fuel a budget unit can combust on a steady state basis, as determined by the physical and operational design and characteristics of the budget unit. Maximum heat input capacity is expressed in millions of British Thermal Units (MMBtu) per unit of time. It is the product of the gross caloric

value (Higher Heating Value) of the fuel (expressed in BTU/pound) multiplied by the maximum fuel feed rate for the combustion device (expressed in mass of fuel/time).

Nox Allowance Tracking System (NATS) means the computer system used by the EPA to track the number of allowances held and used by any account.

Nox Allowance Tracking System Administrator means the Administrator of the computer system used by the EPA to track the number of allowances held and used by any account.

Nox Emissions Tracking System (NETS) means the computer system used by the EPA to track the NOx emissions from budget units.

Nox Emissions Tracking System Administrator means the Administrator of the computer system used by the EPA to track the NOx emissions from budget units.

Non-Part 75 Budget Unit means a budget unit which is not subject to the requirements for emissions monitoring in 40 CFR Part 75.

Opt in means that a person who owns, leases, operates or controls a unit complies with 310 CMR 7.27 even though the unit does not meet the definition of a budget unit as of April 1, 1997.

OTC MOU means the Memorandum of Understanding signed by the representatives of eleven states and the District of Columbia as members of the Ozone Transport Commission on September 27, 1994.

OTR means the Ozone Transport Region as designated by Section 184(a) of the Clean Air Act Amendments of 1990.

Quantifiable means a reliable and replicable method for calculating the amount of an emission reduction acceptable to the Department and to the EPA.

Real means a reduction in emissions, quantified retrospectively, net of any consequential increase in emissions due to shifting demand determined using the New England Power Pool's marginal emission rate.

Recorded with regard to an allowance transfer or allowance deduction, means an account in the NATS has been updated by the NATS Administrator with the details of an allowance transfer or allowance deduction.

Repowering means

- (a) Qualifying Repowering Technology as defined by 40 CFR Part 72 or,

(b) The replacement of a budget unit by either a new combustion unit or the purchase of heat or power from the owner of a new combustion unit, provided the replacement unit:

1. (regardless of owner) is on the same, or contiguous property as the budget unit being replaced;
2. has a maximum heat output rate or power output rate equal to or greater than the maximum heat output rate or power output rate of the budget unit replaced;
3. incorporates technology capable of controlling multiple combustion pollutants simultaneously with improved fuel efficiency and significantly greater waste reduction relative to the performance of technology in widespread commercial use as of November 15, 1990.

Representative emissions for units which opt in to 310 CMR 7.27, or for full-allocation units which reclassify to special units, are an average of the unit's actual emissions in a control period over two representative, consecutive control periods within the five years preceding the opt in or reclassification. In no event may representative emissions be greater than the allowable emissions for that unit established by any permit or regulation.

Submitted means sent to the appropriate authority under the signature of the Authorized Account Representative. For purposes of determining when something is submitted, an official U.S. Postal Service postmark or electronic time stamp establishes the date of submittal.

Surplus means an emission reduction which is not required by the Massachusetts SIP at the time the reduction was made, relied upon in an applicable attainment demonstration, or required by a state or federal permit or order.

(3) The Massachusetts NOx Emission Budget.

(a) For each year from 1999 through and including 2002, the Massachusetts NOx Emission Budget is 18,146 tons of NOx for each control period.

(b) [Reserved]

(c) The Massachusetts NOx emissions budget established in 310 CMR 7.27(3)(a) or (b) may be modified by the Department to include emissions from units which opt in to 310 CMR 7.27 pursuant to 310 CMR 7.27(4)(c), or which the Department opts in under 310 CMR 7.27(4)(d). The Department will record any modification to the emissions budget, and submit it by January 1 of each year to the EPA. Modifications to the emissions budget are subject to a 30 day public notice and comment period.

(4) Applicability

(a) 310 CMR 7.27 applies to anyone who owns, leases, operates or controls a budget unit.

(b) 310 CMR 7.27(10), the requirements for an Authorized Account Representative, applies to Authorized Account Representative(s) and Alternative Authorized Account Representative(s) (AAAR) for both general and compliance accounts.

(c) After July 1, 1997, any person who owns, leases, operates or controls a unit which does not initially meet the definition of a budget unit, may choose to opt in to the NOx Allowance Program, become a budget unit and comply with 310 CMR 7.27 subject to the following:

1. The unit will be considered a budget unit when the Department approves the opt in application. It is then subject to 310 CMR 7.27.
2. Any person who owns, leases, operates or controls a unit who wishes to opt in to 310 CMR 7.27 must submit an application in an emission control plan under 310 CMR 7.27(7) to the Department for approval in order to do so. The application must document the unit's representative emissions. Representative emissions are an average of the actual emissions in a control period over two representative, consecutive control periods within the five years preceding the opt in application. In no event may representative emissions be greater than the allowable emissions for that unit established by any permit or regulation. The representative emissions from the opt in unit, as may be adjusted pursuant to 310 CMR 7.27(4)(c)3., will be added to the Massachusetts NOx emissions budget prior to the allocation of allowances to the opt in unit.
3. For an opt in unit that, by size, would otherwise be an affected unit, the Department will apply to the representative emissions the less stringent of a 65% reduction in representative emissions or an emission rate of 0.2 lbs/MMBtu. The allowances allocated to the unit will be the lesser of the above calculation, or the permitted allowable NOx emissions from the unit.
4. For an opt in unit that, by size, is not considered an affected unit, the Department will allocate a number of allowances equal to the representative control period emissions, or the permitted allowable NOx emissions from the unit, whichever is less. In no case will allocation of allowances to a unit which chooses to opt in to 310 CMR 7.27 require adjustments to the allocation of allowances to budget units already in 310 CMR 7.27.
5. Any person who chooses to opt in to 310 CMR 7.27 must modify their federally enforceable operating permit to include the applicability of 310 CMR 7.27, the authority to trade allowances, and the authority to emit in accordance with the allowances allocated or obtained by the allowance transfer deadline. Any modifications to the unit's operating permit must be done in accordance with 310 CMR 7.00: Appendix C(8).

6. Any person who chooses to opt in to 310 CMR 7.27, and who subsequently ceases or curtails operations, will be subject to an allowance adjustment which represents emissions equivalent to those reduced through the cessation or curtailment of emitting operations.

7. Any person who opts in to 310 CMR 7.27, can not opt out unless the NOx emitting operations at the opt in unit have ceased.

8. Units which are opted in to 310 CMR 7.27 are considered "special units" in 310 CMR 7.27(6), and will receive their total, fixed allocation by May 1 of each year.

(d) If the Department determines that a unit may cause or contribute to a condition of air pollution, the Department may require the person who owns, leases, operates or controls that unit to comply with 310 CMR 7.27 using allowances as assigned by the Department. The Department will notify the person in writing.

(e) Any person who owns, leases, operates or controls a budget unit which is listed in 310 CMR 7.27(6) as a "full allocation unit", may apply to the Department in an emission control plan under 310 CMR 7.27(7) to reclassify that unit to a "special unit", subject to the following:

1. Any person who owns, leases, operates or controls a "full allocation" unit who wishes to reclassify it to a special unit in 310 CMR 7.27(6) must submit an application to the Department in order to do so. The application must document the unit's representative emissions and heat input. Representative emissions and heat input are an average of the actual emissions and heat input in a control period over two representative, consecutive control periods within the five years preceding the application. In no event may representative emissions and heat input be greater than the allowable emissions and heat input for that unit established by any permit issued by the Department or other regulation.

2. The application must also demonstrate that the unit will satisfy the monitoring and reporting requirements of 40 CFR Part 75 or the EPA Monitoring Guidance for Implementation of Emission Monitoring Requirements for the NOx Budget Program.

3. The unit will be considered a "special unit" when the Department approves the application. Once it is reclassified as a "special unit", it will be allocated a fixed number of allowances for each subsequent control period, and the person may request no further allowances from the Department for that unit.

4. The Department will allocate allowances to the person for each subsequent control period equivalent to the heat input used to determine representative emissions times the unit's permitted emission rate.

5. Any person who chooses to reclassify a "full allocation unit" to a "special unit", and who subsequently ceases or curtails operations at that unit before operating for one full control period after reclassification, will be subject to an allowance reduction which represents the emissions eliminated through the cessation or curtailment of emitting operations.

(5) General Provisions.

(a) Beginning May 1, 1999, any person who owns, leases, operates or controls a budget unit must, by December 31 of each calendar year, have a number of NOx allowances in the budget unit's compliance account equal to or greater than the total tons of NOx emitted by that budget unit from May 1 through September 30 of that year. Allowances for which legitimate transfer requests have been submitted by December 31 are considered to be in the compliance account.

(b) Any new budget unit which begins operation after the allocation has been made must notify the Department when it begins operation, and obtain allowances in accordance with 310 CMR 7.27(6) to account for all NOx emissions during any control period. A unit is considered to begin operation when it first emits NOx, including periods of start-up and shakedown activities.

(c) Any person subject to 310 CMR 7.27 must still comply with all other applicable regulations, including, but not limited to, 310 CMR 7.02 Preconstruction Plan Approval and Emission Limitations, 310 CMR 7.19 Reasonably Available Control Technology for Sources of NOx, 310 CMR 7.00: Appendix A Emissions Offsets and Nonattainment Review, and 310 CMR 7.00: Appendix C Operating Permit Program. If provisions or requirements from any other regulation conflict with a provision of 310 CMR 7.27, the more stringent of the provisions will apply unless otherwise determined by the Department in the unit's approved emission control plan. Regardless of the Department's determination in the emission control plan, a person must comply with all applicable federal requirements.

(d) Except as otherwise provided for in 310 CMR 7.27, NOx allowances cannot be used to meet or exceed the limitations of any other permit or regulation.

(e) Offsets required for new or modified units subject to 310 CMR 7.00 Appendix A, Emissions Offsets and Nonattainment Review, must be obtained in accordance with 310 CMR 7.00 Appendix A and Appendix B, as applicable. NOx Allowances under 310 CMR 7.27 may not be used for offsets although emissions represented by allowances may satisfy part of the requirements of 310 CMR 7.00 Appendix A or B.

(6) Allowance Allocation.

(a) In order to simplify the allocation process, the Department will set up four accounts:

1. a "primary" account,
2. a "set-aside" account,
3. a "new unit" account, and
4. a "holding" account.

(b) The Department has divided budget units into four categories:

1. "Full-allocation Units": A full-allocation unit is any unit listed in 310 CMR 7.27(6) Table 1, which has not opted to become a special unit in accordance with 310 CMR 7.27(4)(e), and any new unit after its first season of operation. Full allocation units receive allowances from the set-aside account in an amount equal to the emissions reported to DEP and EPA on October 30 of each year of the allocation period. The maximum possible allocation for each full-allocation unit is its permitted allowable emissions or the number listed next to it in Table 1.

2. "New Units":

a. In 1999, a new unit is any budget unit which begins operating after July 31, 1996 and before October 1, 1999.

b. In 2000 - 2002, a new unit is any budget unit which begins operating after September 30 of the previous year and before October 1 of the current year.

3. "Special Units": A special unit is any unit listed in Table 2, any unit which opts in to 310 CMR 7.27, and any full-allocation unit which has opted to become a special unit under 310 CMR 7.27(4)(e). Special units receive a fixed amount of allowances each year at the amount listed in Table 2. Some special units may receive additional allowances from the set-aside account (if they are available) according to 310 CMR 7.27(6).

4. "Utility Units": Utility units are the units listed in 310 CMR 7.27 Table 3. Utility unit allocations are determined on the percentage basis listed in Table 3 and by the procedures listed in 310 CMR 7.27(6).

310 CMR 7.27(6) Table 1
Full Allocation Units

COMPANY	ORISPL Number	Maximum Possible Allocation
Waters River 2	01678	32

Pittsfield Generating Company	50002	101
Dartmouth	52026	49
Milford	54805	85
Indeck/Pepperell	10522	107
L'Energia	54586	42
Lowell Cogen	10802	99
MASSPOWER	10726	171
NEA Bellingham	10307	458
MIT Cogen	54907	49
GE - Lynn Station	10029	180
MWRA	10823	62
MBTA	10176	10
New Units		Permitted allowable

310 CMR 7.27(6) Table 2
Special Units

COMPANY	ORISPL Number	Amount of Fixed Allocation
Fitchburg	54620	16
Trigen	00507	181
Indeck/TF	50460	90
MATEP	10883	776
BECO Edgar Station	01585	1
BECO Station 240 (Framingham)	01586	1
BECO Station 246 (Medway Jets)	01592	7
CES Blackstone Station	01594	21
CES Cannon Street Station	01616	46
CES Kendall Station	01595	106

WMECO Doreen Street	01631	1
WMECO Woodland Road	01643	1
WMECO Silver Lake	01639	2
WMECO West Springfield	01642	88
BELD Potter CC	01660	126
TRMLP Cleary Station	01682	153
Any full-allocation unit which opts to change status under 310 CMR 7.27(4)(e)		see 310 CMR 7.27(4)(e)
Any unit which opts in to 310 CMR 7.27 under 310 CMR 7.27(4)(c)		see 310 CMR 7.27(4)(c)

310 CMR 7.27 Table 3

310 CMR 7.27 Table 2. Percentage Share for Utility Unit Allowance Allocation			
Company	Plant	ORISPL Number	Percentage
BECO	Mystic Station	01588	12.70
BECO	New Boston Station	01589	11.57
CES	Canal Electric	01599	14.91
EUA	Somerset Station	01613	4.00
NEP	Brayton Pt	01619	32.83
NEP	Salem Harbor	01626	15.49
HWP	Mt. Tom	01606	5.04
MMWEC	Stonybrook Station	06081	3.46

(c) In each year from 1999-2002 the Department will transfer allowances equal to the total Massachusetts NOx emissions budget from its primary, set-aside and new unit accounts to the budget units' compliance accounts and the Department's holding account according to 310 CMR 7.27(6)(d) through (g). The AAR for a compliance or general account may direct DEP to allocate the allowances to other accounts in accordance with 310 CMR 7.27(8)(h).

(d) The 1999 Control Period.

1. Prior to May 1, 1999, the Department will transfer allowances dated for the 1999 control period from its primary account according to the following sequential steps:

- a. The Department will transfer a number of allowances to the "set-aside account" equal to the sum of the of allowances needed for the full-allocation units listed in 310 CMR 7.27(6) Table 1.
- b. The Department will transfer 500 allowances into the "new unit account".
- c. The Department will transfer allowances equal to the amount of the fixed allocation for special units listed in Table 2 to the compliance accounts of the special units.
- d. The Department will transfer 152 allowances to its holding account for possible later use by MATEP.
- e. The Department will transfer the remainder of the allowances to the compliance accounts of the utility units according to the percentages listed in 310 CMR 7.27(6) Table 3.

2. As required by 310 CMR 7.27(13), by October 30, 1999, all budget units must report their control period emissions to EPA. No later than October 30 of each year, any new unit may submit a request to the Department to transfer allowances from the Department's new unit account to its compliance account, and any full-allocation unit, and any applicable special unit, may submit a request to the Department to transfer allowances from the Department's set-aside account to their compliance accounts. By November 30 the Department will transfer the requested allowances in the order the requests were received by the Department, subject to the availability of allowances in the appropriate accounts and the following conditions:

- a. Each new unit may request that the Department transfer allowances up to the lesser of the total emissions reported under 310 CMR 7.27(13), or the unit's permitted allowable emissions. The allowances will be transferred from the new unit account to the unit's compliance account. None of the allowances transferred under this request may be transferred out of the new unit's compliance account except to comply with 310 CMR 7.27(14) and 310 CMR 7.27(6).
- b. Each full-allocation unit may request that the Department transfer allowances up to the lesser of the total emissions reported under 310 CMR 7.27(13), or the maximum for that unit in 310 CMR 7.27(6) Table 1. The allowances will be transferred from the set-aside account to the unit's compliance account. None of the allowances transferred under this request

may be transferred out of the full allocation unit's compliance account, except to comply with 310 CMR 7.27(14) and 310 CMR 7.27(6).

c. Each applicable special unit may request that the Department transfer allowances from the set-aside account to the unit's compliance account subject to the following additional conditions:

i. Trigen may request as many allowances as needed over its original 181 allowances up to the total emissions reported under 310 CMR 7.27(13) only if its average actual emission rate over the current control period did not exceed 0.2#/MMBtu. The average emission rate is calculated by dividing the total pounds of NO_x emitted over the current control period by the total heat input over the same period. Trigen must use any banked allowances it owns before the Department will transfer allowances from the set-aside account to its compliance account.

ii. Indeck/TF may request as many allowances as needed over its original 90 allowances up to the total emissions reported under 310 CMR 7.27(13). The Department will calculate the number of allowances which can be transferred by multiplying an emission rate of either 0.2#/MMBtu or Indeck/TF's actual emission rate, whichever is lower times the heat input for any emissions over 90 tons for the control period.

iii. MATEP may request additional allowances from the Department's holding account up to their reported emissions with a maximum request of 152 allowances. Any additional allowances needed by MATEP over 928 (776 + 152) are the responsibility of MATEP. MATEP must use any banked allowances it owns before the Department will transfer any of the 152 allowances to MATEP. Any of the 152 allowances not requested by MATEP will be held by the Department for use or retirement by the Department.

iv. The Department will transfer allowances subject to the above conditions from the set-aside and holding accounts to the compliance accounts of Trigen, Indeck/TF and MATEP.

3. By November 30, after accounting for the requests in 310 CMR 7.27(6)(d)2.a., b., c., the Department will:

a. Transfer half of any remaining allowances from the new unit and set-aside accounts to the Department's holding account.

b. Transfer the remaining half of the allowances in the new unit and set-aside accounts to the utility units' compliance accounts according to the percentages listed in 310 CMR 7.27(6) Table 3.

4. For the 1999 control period only, full-allocation units may request additional allowances after October 30, 1999. All requests must be received by the Department by December 20, 1999. The allowances will be transferred in the order the requests were received, subject to the availability of allowances in the Department's holding account. The Department will deduct half of the total number of allowances transferred this way from the total utility allocation in 2000. None of the allowances transferred under this request may be transferred out of the unit's compliance account except to comply with 310 CMR 7.27(14) and 310 CMR 7.27(6).

5. After the allowance transfer deadline of December 31 of each year, no budget unit may transfer allowances to or from its compliance account until all compliance issues have been resolved with the Department and the Department releases the compliance account.

6. Within 15 days of a final compliance determination, all full-allocation units and new units will return any unused allowances remaining in their compliance accounts to the Department which were transferred to them in accordance with 310 CMR 7.27(6)(d)2.a., b. and 310 CMR 7.27(6)(d)4. This does not apply to allowances in the unit's account which were transferred there by other means (e.g. purchase or trade).

7. Within 15 days of the transfer in 310 CMR 7.27(6)(d)6. the Department will:

a. Transfer half of the allowances returned under 310 CMR 7.27(6)(d)6. to the Department's holding account.

b. Transfer the other half of the returned allowances to the utility units' compliance accounts at the percentages listed in 310 CMR 7.27(6) Table 2.

(e) The 2000 Control period.

1. The Department will allocate allowances by April 30, 2000 using the procedures of 310 CMR 7.27(6)(d) with the following changes: All new units from 1999 will now be full-allocation units. The Department will increase the allocation to the set-aside account to cover all full-allocation units. The Department will calculate the maximum amount of allowances which could be needed by any new full-allocation unit based on the unit's potential to emit during the control period as contained in a permit approved by the Department under 310 CMR 7.02 or 310 CMR 7.00 Appendix A.

2. The Department will follow the procedures of 310 CMR 7.27(6)(d) at the end of the control period, adjusting only the dates in 310 CMR 7.27(6)(d) for the change of year, and excluding transfers under 310 CMR 7.27(6)(d)4.

(f) The 2001 and 2002 Control periods.

1. The Department will allocate allowances prior to the 2001 and 2002 seasons using the same sequential steps as it did for the 2000 season, as specified in 310 CMR 7.27(6)(e)1. and 2.

2. The Department will transfer allowances from its set-aside and new-unit accounts at the end of the 2001 and 2002 seasons using the same sequence as it did at the end of the 2000 season, except for 310 CMR 7.27(6)(d)3. Instead the Department will do the following:

a. After accounting for the transfer requests in 310 CMR 7.27(6)(d)2.a., b., c., the Department will transfer half of any remaining allowances from the set-aside account to the Department's holding account.

b. The Department will then offer the remaining half of the allowances in the set-aside account through an open auction. If the Department has not established authority and an official procedure for the auction, the Department will distribute the remaining half of the allowances to the utility units according to the percentages listed in 310 CMR 7.27(6) Table 3.

(g) The list of budget units allocated allowances in 310 CMR 7.27(6) Tables 1, 2 and 3 may be modified by the Department to include units which opt in to 310 CMR 7.27 pursuant to 310 CMR 7.27(4)(c), reclassify under 310 CMR 7.27(4)(e), or which the Department opts in under 310 CMR 7.27(4)(d). Units which are opted in or reclassified will be treated as special units and receive a fixed allocation each year. Any modification of 310 CMR 7.27(6) Tables 1, 2 and 3 after January 1, 1997 shall be recorded and maintained by the Department, and submitted by January 1 of each year to the EPA. The Department will provide notice in the Massachusetts Environmental Monitor with an opportunity for public comment before modifying the list of units in 310 CMR 7.27(6).

(h) If a person who owns, leases, operates or controls a budget unit reduces the unit's emissions, and transfers those emission reductions under 310 CMR 7.00: Appendix A or B to a person not subject to 310 CMR 7.27, that person (the originator) will be subject to a deduction of allowances equal to the emission reductions transferred off-budget. This deduction will not be made if the unit receiving the emission reductions from a budget unit voluntarily opts in to 310 CMR 7.27 under 310 CMR 7.27(4)(c). The opt in must occur prior to the transfer of emission reductions.

(i) Special and utility units which cease to operate after January 1, 1997 will continue to receive allowances for each control period in the allocation period unless a request to reallocate allowances has been filed by the Authorized Account Representative pursuant to 310 CMR 7.27(8)(h). Full-allocation units which cease to

operate will not continue to receive allowances since they will be reporting emissions of 0 tons on October 30 of each year.

(j) 1. Any person who owns, leases, operates or controls a new budget unit which repowered an existing budget unit, as determined by the Department, must choose one of the following options before the new budget unit begins emitting NOx:

a. receive allowances under 310 CMR 7.27(6) as a new unit, and remit all future allocations for the existing unit to the Department; or,

b. continue to receive the allocation for the existing unit, and receive no allowances from the Department's new unit account for the new budget unit.

2. If the person who owns, leases, operates or controls the new budget unit does not indicate to the Department which option in 310 CMR 7.27(6)(j)1. is chosen, before the unit begins emitting NOx, the Department will choose an option.

(k) An allowance is not a security or other form of property. An allowance allocation may be separated from the budget unit to which it is initially allocated according to the procedures of 310 CMR 7.27(8)(h).

(l) After providing an opportunity for public comment, the Department may condition, limit, suspend or terminate any allowance or the authorization to emit which an allowance represents.

(m) For each year after 2002, NOx allowances will be allocated and utilized in accordance with the requirements in 310 CMR 7.28(6).

(7) Emission Control Plans and Operating Permits.

(a) Emission Control Plan Application Deadlines.

1. Any person who owns, leases, operates or controls a budget unit must submit an emission control plan for approval by the Department for each facility which contains one or more budget unit(s). Emission control plans must be submitted according to the following schedule:

a. By July 31, 1997, for any person who is making physical or operational changes at a budget unit, not including changes to monitoring systems;

b. By August 15, 1997, for any person who is using any alternative heat input monitoring or unit specific maximum heat inputs in the monitoring section of the Emission Control Pan;

c. By September 30, 1997 for any person who owns, leases, operates or controls a budget unit, and who has not already submitted an application;

d. Within six months of becoming subject to 310 CMR 7.27 if the unit becomes subject to 310 CMR 7.27 after July 1, 1997, and does not have an emission control plan contained in an approval issued by the Department under 310 CMR 7.02(2) or 310 CMR 7.00: Appendix A.

2. All emission control plan applications are subject to the fee regulations and approval timelines contained in 310 CMR 4.00.

3. If the emission control plan for a new budget unit is contained in an approval issued by the Department under 310 CMR 7.02(2), or 310 CMR 7.00: Appendix A, there is no separate requirement for approval of an emission control plan under 310 CMR 7.27.

4. For budget units operating prior to July 1, 1997, separate approval under 310 CMR 7.02(2) or 310 CMR 7.00: Appendix A is not required for equipment or procedures approved by the Department in an emission control plan under 310 CMR 7.27.

(b) Emission Control Plan Contents. The emission control plan submitted under 310 CMR 7.27(7) must include at least the following:

1. The name of the company.

2. A list of budget units.

3. A compliance account identification number for each budget unit.

4. The Authorized Account Representative, and Alternative. Authorized Account Representative, if applicable, for each budget unit.

5. If applicable, the operating practices, control efficiency, design, specifications, and standard operating and maintenance procedures for equipment used to meet the requirements of 310 CMR 7.27.

6. Any other information requested by the Department.

7. A monitoring plan which meets the requirements of 310 CMR 7.27(11).

8. Signature of the Authorized Account Representative.

(c) Approval of Emission Control Plans

1. For any person who owns, leases, operates or controls a facility which includes a budget unit that is also subject to the operating permit program under 310 CMR 7.00: Appendix C, the facility's operating permit will be modified upon approval of the emission control plan, in accordance with the procedures in 310 CMR 7.00: Appendix C(8) in order for the emission control plan to be federally enforceable. No additional application or fee is necessary to modify the operating permit at the same time the emission control plan is approved.

2. For any person who owns, leases, operates or controls a facility which includes a budget unit that is not subject to the operating permit program under 310 CMR 7.00: Appendix C, and who is proposing to use one of the alternative monitoring procedures in 310 CMR 7.27(11), the Department will use the following public review process in order to make the emission control plan federally enforceable.

a. If the Department proposes to approve the emission control plan or approve the plan with conditions, it shall:

i. Notify the public of the Department's proposed action and availability of all related materials, by advertisement in a newspaper having wide circulation in the area of the facility applying for a permit restriction and allow not less than 30 days for public comment.

ii. Send a copy of the notice of public comment to the applicant and the EPA.

iii. Consider all public comments in making a final decision on the proposed emission control plan. The Department shall make all comments received available for public inspection.

iv. Make a final determination whether the emission control plan should be approved or approved with conditions.

v. Notify the applicant and EPA in writing of the final determination and provide a copy of the final emission control plan approval or approval with conditions.

3. For any person who owns, leases, operates or controls a facility which includes a budget unit that is not subject to the operating permit program in 310 CMR 7.00: Appendix C, and who is not proposing to use one of the alternative monitoring procedures in 310 CMR 7.27(11), the Department will approve or disapprove the emission control plan without public comment.

(d) The Department will approve emission control plans in three phases. Deadlines for submissions after the first phase will be contained in the approval for the first phase. Submissions required for later phases may be subject to fees, but are not

considered a separate emission control plan submittal. The following outline the Department's expected three-phase approval process:

1. Approval of the emission control plan concept including the proposed methods of emission rate and heat input monitoring;
2. Approval of the detailed monitoring plan required under 310 CMR 7.27(11) and the Guidance for Implementation of Emission Monitoring Requirements for the NOx Budget Program;
3. Approval of the certification of the monitoring equipment required under 310 CMR 7.27(11) and the Guidance for Implementation of Emission Monitoring Requirements for the NOx Budget Program.

(8) Allowance Use and Transfer.

(a) An allowance is a limited authorization to emit one ton of NOx during a specified control period or any control period thereafter. An allowance is usable only for complying with the provisions of 310 CMR 7.27 and may be bought, sold or traded at any time in accordance with 310 CMR 7.27.

(b) Allowances may only be used by a budget unit for compliance with 310 CMR 7.27 in a designated compliance year by being in the budget unit's compliance account as of the allowance transfer deadline, or by being transferred into the compliance account by an allowance transfer request submitted by the allowance transfer deadline.

(c) An allowance transfer will occur as follows:

1. The transfer request must be on a form, or electronic media, in a format determined by the NOx Allowance Tracking System (NATS) Administrator. The request must be submitted to the Administrator, and include, at a minimum:

- a. The account numbers identifying both the originating account and the acquiring account;
- b. The names and addresses associated with the owners of the originating account and the acquiring account; and,
- c. The serial number for each allowance being transferred.

2. The transfer request must be authorized and certified by the Authorized Account Representative for the originating account. To be considered correctly submitted, the request for transfer must include the following statement of

certification (verbatim): "I am authorized to make this submission on behalf of the owners and operators of the budget unit, and I hereby certify under penalty of law, that I have personally examined the foregoing and am familiar with the information contained in this document and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including possible fines and imprisonment."

The Authorized Account Representative for the originating account must provide a copy of the transfer request to each owner or operator of the budget unit.

(d) Transfer requests will be processed by the NATS Administrator in order of receipt.

(e) The transfer is complete when the NATS Administrator verifies the following:

1. Each allowance listed in the transfer request is held by the originating account at the time the transfer will be recorded;
2. The acquiring party has an account in the NATS; and,
3. The transfer request has been filed by the person named as Authorized Account Representative for the originating account.

(f) Valid allowance transfers, after verification by the NATS Administrator, will be recorded in the NATS by deducting the specified allowances from the originating account and adding them to the acquiring account.

(g) The NATS Administrator will notify the Authorized Account Representatives for the originating account, and designated state officials where the acquiring account and originating accounts are located, of an allowance transfer. Notification may be made on paper or electronically and will include:

1. the effective date of the transfer;
2. the identity of the originating account and the acquiring account by name as well as account number; and,
3. the number of allowances transferred and their serial numbers.

(h) Should the Authorized Account Representative for a budget unit determine that some or all allocated allowances should be transferred to another budget unit's compliance account or other general account for the remainder of the current

allocation period, the Authorized Account Representative of the originating account must submit a request for transfer that states this intent to the NATS Administrator. A request for transfer of allowances for the remainder of the allocation period must comply with 310 CMR 7.27(8)(c). In addition, the request must be submitted to the Department with a letter requesting that future allowance allocations be made directly to the acquiring account.

(i) Any budget unit will make available to the Department, upon request, information regarding transaction cost and allowance price on request.

(9) Allowance Banking.

(a) Allowances may be banked for future use in a compliance account or general account.

(b) All banked allowances retained in a budget unit's compliance or general account will be permanently retired on April 30, 2003, except to the extent the unit receives compliance supplement pool allowances under 310 CMR 7.28(6)(1).

(c) Banked allowances may be used for compliance with 310 CMR 7.27 in accordance with the following requirements:

1. By March 1 of each year, the total number of banked allowances in the OTR will be determined by the NATS Administrator and used to determine how banked allowances may be used in the current year as follows:

a. If the total number of banked allowances in the OTR is less than or equal to 10% of the OTR's NOx emissions budget for the current year's control period, all banked allowances may be used for compliance with 310 CMR 7.27 on a one-for-one basis.

b. If the total number of banked allowances in the OTR exceeds 10% of the OTR's NOx emissions budget for the current year's control period, banked allowances in each NATS compliance and general account will be subject to the following:

i. A ratio will be established according to the following formula:

$$\frac{0.10 \times \text{the regional NOx Budget}}{\text{the total number of banked allowances in the region.}}$$

ii. The ratio calculated in 310 CMR 7.27(9)(c)1.b.i. will be applied to the banked allowances in each account. The resulting number is the number of banked allowances in the account which can be used in the current

year's control period on a one-for-one basis. Allowances in excess of that number, if used, must be used on a two-for-one basis.

2. The Department will notify the AAR for each account of the ratio which must be applied to banked allowances to determine the number of banked allowances available for use in the current year's control period on a one-for-one basis, and the number of banked allowances available for use in the current year's control period on a two-for-one basis.

(d) Early Reduction Allowances. Any person who owns, leases, operates or controls a budget unit may create NOx emission reductions from May 1 through September 30 in 1997 or 1998. The reductions may be created through physical or operational changes which occurred prior to 1997 or 1998. The Department will certify the reductions as early reduction credits under 310 CMR 7.00: *Appendix B*, and convert them to NOx allowances usable in 1999, subject to the following:

1. Approval by the Department that the reductions are real, quantifiable, and surplus to any other Department regulations, or policies which may be applicable;
2. In order for NOx emission reductions to be approved as surplus, the reductions must result from control of a budget unit's NOx emission rate below the more stringent of:
 - a. for indirect heat exchangers greater than 250 MMBtu/hr, a 65% reduction from baseline emissions, or 0.2 lbs NOx/MMBtu, whichever is less stringent;
 - b. for electric generators rated greater than 15 MW which are not indirect heat exchangers greater than 250 MMBtu/hr, application of Reasonably Available Control Technology.
 - c. the permitted allowable emissions for the unit, unless the unit is a replacement unit for repowering for a unit which operated in 1990, whereupon a 65% reduction from baseline emissions or an emission rate of 0.2 lbs NOx/MMBtu, whichever is less stringent for the 1990 unit, supersedes the permitted allowable emissions for purposes of establishing early reduction credit;
 - d. the actual emission rate for the 1990 control period; or,
 - e. the actual emission rate for the average of two representative year control periods within the first five years of operation if the budget unit did not commence operation until after 1990.
3. The amount of early reduction credit presumes a capacity utilization (in MMBtu) equal to the average capacity utilization of the budget unit for the two

consecutive calendar years immediately preceding the period for which early reduction credit is being applied for, adjusted for any reduced capacity utilization resulting from shut down or curtailment of the budget unit.

4. The Department will allow the use of a different two consecutive year period within the five years immediately preceding the early reduction credit application should the budget unit demonstrate, to the satisfaction of the Department, that an alternate two consecutive year period is more representative.

5. Repowering of a budget unit is eligible for early reduction credit provided that the replacement unit is approved by the Department after January 1, 1997, and the budget unit being replaced ceases operation in 1997 or 1998.

6. Before May 1, 1999 early reduction credit will be converted by the Department into allowances dated for use in 1999 and thereafter. Emission reductions converted to allowances under 310 CMR 7.27 cannot be used under 310 CMR 7.00: *Appendix A or B*.

7. On or before May 1, 1999, the Department will report the number of early reduction credits converted to allowances for use in 1999 and thereafter.

(10) NOx Allowance Tracking System (NATS).

(a) The NOx Allowance Tracking System (NATS) is the EPA's electronic recordkeeping and reporting system which is the official database for all allowance use and transfer related to 310 CMR 7.27. The NATS will track:

1. the allowances allocated by the Department to each budget unit,
2. the allowances held in each account;
3. the allowances used by each budget unit to comply with 310 CMR 7.27 for each control period;
4. the compliance accounts established for each budget unit to determine compliance with 310 CMR 7.27 for the unit;
5. any general accounts opened by individuals or entities, which are not used to determine compliance;
6. allowance transfers, as submitted voluntarily by the Authorized Account Representative; and,
7. deductions of allowances for compliance purposes.

(b) The NATS will establish a compliance account for each budget unit. The NATS will give each account an account number and provide the following information, at minimum, associated with each account:

1. the name of the account owner,
2. the name of the Authorized Account Representative,
3. the mailing address of the Authorized Account Representative,
4. the phone number of the Authorized Account Representative,
5. the address of budget unit associated with each compliance account, and
6. the state in which the budget unit is located.

(c) The NATS will also establish general accounts upon request. Any person or group may open a general account. An Authorized Account Representative must be designated for each general account. That representative has the same obligations as an Authorized Account Representative designated by a budget unit.

(d) Only an Authorized Account Representative can request transfers of allowances from an account. For each account, one Authorized Account Representative and one alternate must be identified to represent the budget unit, or the owner of a general account. The Authorized Account Representative is responsible for all transactions and reports submitted to the NATS. The Alternate Authorized Account Representative has the same authority as the "primary" representative, however, all correspondence from the NATS Administrator will be directed to the primary Authorized Account Representative.

(e) The Authorized Account Representative will be officially designated when the NATS Administrator receives a form entitled "Account Certificate of Representation". The form constitutes an agreement of representation and contains, at a minimum, the following information:

1. identification of the budget unit by plant name, state and unit number for which the certification of representation is submitted;
2. the name, address, telephone and facsimile number of the Authorized Account Representative and any alternate;
3. a list of owners and operators of the budget unit;

(f) The "Account Certificate of Representation" must be signed by the Authorized Account Representative for the budget unit and must contain the following statement (verbatim):

"I certify that I, __ (name) __, was selected as the Authorized Account Representative as applicable by an agreement binding on the owners and operators of the budget unit legally designated as __ (name of unit) __".

Designation of an Authorized Account Representative for each budget unit must be completed by December 31, 1997. After December 31, 1997, a new Authorized Account Representative can be designated by submitting a new "Account Certificate of Representation". The NATS Administrator will confirm the change of Authorized Account Representative in writing once the change is recorded in the NATS.

(g) Each unit account will have a unique identification number, and each allowance will be assigned a unique serial number. Each allowance serial number will also indicate the first year it may be used for compliance with 310 CMR 7.27.

(11) Emission Monitoring.

(a) General Requirements. Any person who owns, leases, operates or controls a budget unit must comply with the following, as applicable:

1. NOx emissions from each budget unit must be monitored as specified in 310 CMR 7.27(11) and in the Guidance for Implementation of Emission Monitoring Requirements for the NOx Budget Program, dated January 28, 1997.
2. The owner or operator of each budget unit must submit to the Department a monitoring plan as part of the emission control plan required in 310 CMR 7.27(7). At minimum, the monitoring plan must detail the monitoring method(s) which will be used at the budget unit and meet the requirements established in the Guidance for Implementation of Emission Monitoring Requirements for the NOx Budget Program. In addition, budget facilities not subject to 40 CFR Part 75 must include the information required in 310 CMR 7.27(11)(f).
3. Emission monitoring systems required by 310 CMR 7.27(11), must be installed, operational and meet all certification testing requirements by April 30, 1999.
4. Budget facilities which commence operation after January 1, 1998 must submit a monitoring plan, and install, operate and certify the emission monitoring systems required by 310 CMR 7.27(11) within 90 days after the date the unit commences operations.

5. All monitoring systems are subject to initial performance testing and periodic calibration, accuracy testing and quality assurance/quality control testing as specified in the Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program.
 6. During a period when valid data is not being recorded by a monitoring system approved under 310 CMR 7.27, the missing or invalid data must be replaced with default data in accordance with the provisions of 40 CFR Part 75 or the Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program.
 7. NO_x emissions data must be reported to the NO_x Emissions Tracking System (NETS) in accordance with 310 CMR 7.27(13).
 8. Each budget unit which operates, or commences operation, prior to January 1, 1998 must begin reporting data to the NETS in accordance with 310 CMR 7.27(13) beginning on July 1, 1998.
 9. Budget facilities which commence operation after January 1, 1998 must begin reporting data on July 1, 1998, or in the first hour that the budget unit is operating during a control period, whichever is later.
- (b) Part 75 Units with Flow Monitors. Any person who owns, leases, operates or controls a budget unit subject to 40 CFR Part 75, must demonstrate compliance with 310 CMR 7.27 using a certified Part 75 monitoring system. If the budget unit has a flow monitor certified under 40 CFR Part 75, the NO_x emissions in pounds per hour must be determined using a NO_x CEMS and the flow monitor. NO_x in pounds per million Btu must be determined by using the procedure in Section 3 of Appendix F of 40 CFR Part 75. The hourly heat input must be determined by using the procedures in Section 5 of Appendix F of 40 CFR Part 75. NO_x in pounds per hour is determined by multiplying the above values together.
- (c) Part 75 Units without Flow Monitors and with NO_x CEMS. Any person who owns, leases, operates or controls a budget unit subject to 40 CFR Part 75 which does not have a certified flow monitor, but which does have a NO_x CEMS, must determine NO_x emissions in pounds per MMBtu using the NO_x CEMS. Heat input in MMBtu per hour must be determined using the procedures contained in Appendix D of 40 CFR Part 75. NO_x in pounds per hour is determined by multiplying the above values together.
- (d) Part 75 Units using Appendix E of 40 CFR Part 75. Any person who owns, leases, operates or controls a budget unit subject to 40 CFR Part 75 who is using the procedures in Appendix E of 40 CFR Part 75, must determine the NO_x emission rate in pounds per hour by multiplying the predicted NO_x emission rate derived from the

Appendix E correlation procedures times the heat input determined using Appendix D of 40 CFR Part 75.

(e) Part 75 Units using Subpart E of 40 CFR Part 75. Any person who owns, leases, operates or controls a budget unit subject to 40 CFR Part 75 who is using the procedures in Subpart E of 40 CFR Part 75, must determine the NO_x emission rate in pounds per hour by using the alternative monitoring method approved under 40 CFR Part 75, Subpart E and the procedures contained in the Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program.

(f) Non-Part 75 Units, General Provisions.

1. Any person who owns, leases, operates or controls a budget unit which is not subject to 40 CFR Part 75 must:
 - a. Prepare and obtain approval of a monitoring plan according to 310 CMR 7.27(11)(f) and the Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program;
 - b. Determine the NO_x emission rate and heat input using an appropriate methodology from 310 CMR 7.27(11)(g) through (k), or determine the NO_x concentration and flow rate using an appropriate methodology from 310 CMR 7.27(11)(g) through (k), and,
 - c. Calculate the NO_x emission rate in pounds per hour using the procedure in 310 CMR 7.27(11)(l).
2. The monitoring plan submitted under 310 CMR 7.27(11)(f)1. must contain:
 - a. A description of the monitoring approach which will be used.
 - b. A description of the major components of the monitoring system including the manufacturer, serial numbers of the component, the measurement spans of the components and documentation demonstrating that the measurement span of each component is appropriate to measure all of the expected values. This requirement applies to all monitoring systems, including NO_x CEMS which have not been certified pursuant to 40 CFR Part 75.
 - c. An estimate of the accuracy of the monitoring system and documentation to demonstrate how the estimate of accuracy was determined.
 - d. A description of the tests which will be used for initial certification, initial quality assurance, periodic quality assurance, and relative accuracy.
 - e. Other documentation as follows:

- i. if the monitoring method for determining heat input involves boiler efficiency testing, a description of the boiler efficiency test.
- ii. if the method for determining heat input uses fuel sampling, a description of the fuel sampling test.
- iii. if the monitoring method utilizes fuel flow meters to determine the heat input, and the meters have not been certified pursuant to 40 CFR Part 75, the monitoring plan must include a description of all components of the fuel flow meter, the estimated accuracy of the fuel flow meter, the most recent calibration of each of the components and the original accuracy specifications from the manufacturer of the fuel flow meter.

f. If the method utilizes a unit-specific default emission rate or a unit specific emission factor:.

- i. all information necessary to support the default emission rate, including historical monitoring data and historical fuel usage data. If the unit plans to conduct emission testing to determine emission rate, the plan must include a test protocol explaining the testing to be conducted.
- ii. procedures which will be utilized to demonstrate that any control equipment in operation during the testing to develop unit specific emission factors or during development of load-based emissions curves, is in use when those factors or emission curves are used to estimate NO_x emissions.
- iii. uncontrolled emission rates to be used to estimate NO_x emissions when the control equipment is not being used or is inoperable.

(g) Any Non-Part 75 Unit.

1. Any person who owns, leases, operates or controls a budget unit which is not subject to 40 CFR Part 75, may monitor the unit's NO_x emissions using one of the following methods:

- a. Monitor the NO_x emission rate in lbs/MMBtu using a NO_x emission rate CEMS, or Part 75 Alternative Monitoring system, in accordance with 40 CFR Part 75; and determine the heat input using stack flow monitors, F factors, and a diluent monitor, or;
- b. Monitor the NO_x concentration in ppm using a NO_x CEMS, and the stack flow using a stack flow CEMS.

2. Any person who owns, leases, operates or controls a budget unit which is not subject to 40 CFR Part 75, may, upon approval of the Department, monitor the unit's NOx emissions by monitoring the NOx emission rate in pounds per MMBtu using a NOx emission rate CEMS, or Part 75 Alternative Monitoring system, in accordance with 40 CFR Part 75; and determine the heat input using one of the following methods:

- a. An hourly alternative heat input monitoring method (e.g., boiler efficiency, hourly fuel usage, etc.), or;
- b. A unit specific maximum heat input.

(h) Non-Part 75 Units which are Required to Use NOx CEMS. Any person who owns, leases, operates or controls a budget unit which is not subject to 40 CFR Part 75, and which satisfies any one of the following:

- 1. The budget unit has a NOx CEMS installed to meet the requirements of 40 CFR Part 60, or any other Department requirement; or,
- 2. the budget unit is permitted to combust solid fuel; or,
- 3. the budget unit has a heat input capacity greater than 250 MMBtu per hour, and is not a peaking unit as defined in 40 CFR Part 72.2;

must determine the NOx emission rate using a NOx CEMS. If the person monitors stack flow, then the NOx CEMS may monitor the NOx emission rate in parts per million, otherwise the NOx emission rate must be measured in pounds per MMBtu. NOx CEMS must meet quality assurance criteria described in the Guidance for Implementation of Emission Monitoring Requirements for the NOx Budget Program. Any time a NOx CEMS cannot be used to report data for 310 CMR 7.27 because it does not meet the requirements in the Guidance for Implementation of Emission Monitoring Requirements for the NOx Budget Program, the missing data must be filled in using the procedures in that guidance. The NOx CEMS must meet the initial certification requirements contained in the Guidance for Implementation of Emission Monitoring Requirements for the NOx Budget Program. Any person may choose to use a NOx CEMS to monitor the NOx emission rate even if they are not specifically required to do so.

(i) Non-Part 75 Units which Combust Only Oil or Natural Gas. Any person who owns, leases, operates or controls a budget unit which is not subject to 40 CFR Part 75, and which combusts only oil or natural gas, may monitor the unit's NOx emissions by monitoring the NOx emission rate in pounds per MMBtu using a NOx emission rate CEMS, or Part 75 Alternative Monitoring system, in accordance with 40 CFR Part 75; and determine the heat input by using hourly fuel flow monitoring in

accordance with the Guidance for Implementation of Emission Monitoring Requirements for the NOx Budget Program.

(j) Non-Part 75 Units Not Combusting Solid Fuels.

1. Any person who owns, leases, operates or controls a budget unit which is not subject to 40 CFR Part 75, and which does not combust solid fuels, may, upon approval of the Department, monitor the unit's NOx emissions by determining the NOx emission rate in pounds per MMBtu using NOx/heat input correlation in accordance with 40 CFR Part 75, Appendix E, and determining the heat input by using hourly alternative heat input monitoring (e.g., boiler efficiency, hourly fuel usage, etc.).
2. a. Any person who owns, leases, operates or controls a budget unit which is not subject to 40 CFR Part 75, and which does not combust solid fuels, may, upon approval of the Department, monitor the unit's NOx emissions by determining the NOx emission rate in pounds per MMBtu using a default emission factor, and determining the heat input by using one of the following:
 - i. hourly alternative heat input monitoring (e.g., boiler efficiency, hourly fuel usage, etc.).
 - ii. unit-specific maximum heat input
- b. The default emission factors which may be used in 310 CMR 7.27(11)(i)2.a. are:
 - i. for gas-fired turbines: 0.7 pounds NOx per MMBtu;
 - ii. for oil-fired turbines: 1.2 pounds NOx per MMBtu;
 - iii. for gas-fired boilers: 1.5 pounds NOx per MMBtu;
 - iv. for oil-fired boilers: 2.0 pounds NOx per MMBtu;
 - v. a unit specific maximum potential emission rate provided that testing is performed using a protocol approved by the Department and consistent with the Guidance for Implementation of Emission Monitoring Requirements for the NOx Budget Program.

(k) Other Non-part 75 Units.

1. Any person who owns, leases, operates or controls a budget unit which is not subject to 40 CFR Part 75, and satisfies one of the following:

- a. It is a budget unit which has a heat input capacity less than or equal to 250 MMBtu/hr, and which combusts only oil or natural gas; or
- b. It is a budget unit which has a heat input capacity greater than 250 MMBtu per hour, which combusts only oil or natural gas and is a peaking unit as defined in 40 CFR Part 72.2:

may monitor the unit's NO_x emissions by determining the NO_x emission rate in pounds per MMBtu using a NO_x/heat input correlation in accordance with 40 CFR Part 75, Appendix E, and determining the heat input by using hourly fuel flow monitoring.

2. Any person who owns, leases, operates or controls a budget unit which is not subject to 40 CFR Part 75, and satisfies one of the following:
 - a. It is a budget unit which has a heat input capacity less than or equal to 250 MMBtu/hr, and which combusts only oil or natural gas; or
 - b. It is a budget unit which has a heat input capacity greater than 250 MMBtu per hour, which combusts only oil or natural gas and which is a peaking unit as defined in 40 CFR Part 72.2:

may monitor the unit's NO_x emissions by determining the NO_x emission rate in pounds per MMBtu using a default emission factor from 310 CMR 7.27(11)(j)2.b., and determining the heat input by using either:

- i. hourly fuel flow monitoring; or,
- ii. long term fuel flow monitoring or fuel measurements.

(l) If the NO_x emission rate has been determined in pounds per MMBtu and the heat input rate has been determined in MMBtu per hour, multiply the two values together to determine NO_x emissions in pounds per hour. If the NO_x emission rate has been determined in parts per million, and the flow has been determined in standard cubic feet per hour, use the procedures the Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program to determine NO_x emissions in pounds per hour. All data must be reported to the NETS in accordance with 310 CMR 7.27(13).

(m) Where unusual stack configurations complicate the monitoring protocol, the relevant procedures contained in the Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program apply.

(n) Any person who owns, leases, operates or controls a budget unit which is not subject to 40 CFR Part 75, may apply to the Department to use an alternative

monitoring methodology which is not listed in 310 CMR 7.27(11) or in the Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program. The Department will approve such a petition if the person can demonstrate to the Department that:

1. It is not technologically and economically feasible to use one of the listed methodologies; and,
2. The proposed methodology is and will remain equivalent in accuracy to a method approvable under 40 CFR Part 75.

In approving an alternative monitoring methodology the Department may require bias, accuracy or compliance assurance adjustment factors be applied to the emissions reported using the alternative monitoring methodology.

(o) Part 75 units using the Low Mass Emissions Methodology of 40 CFR 75. Any person who owns, leases, operates or controls a budget unit subject to 40 CFR 75 who is using the procedures in 40 CFR 75.19 must calculate control period NO_x mass emissions by summing all of the hourly NO_x mass emissions in the control period, as determined under 40 CFR 75.19(c)(4)(ii)(A), divided by 2000 lb/ton.

(p) Any person subject to 310 CMR 7.27(11) may satisfy the NO_x emission monitoring requirements of 310 CMR 7.27(11) by meeting the monitoring requirements of 40 CFR Part 75 Subpart H.

(12) Record Keeping. Any person who owns, leases, operates or controls a budget unit must keep all measurements, data, reports and other information required by 310 CMR 7.27 for five years, or any other period consistent with the budget unit's operating permit.

(13) Reporting.

(a) 1. The Authorized Account Representative for each budget unit which uses a CEMS to measure NO_x emissions or heat input, must submit to the Administrator all emissions and operating information for each calendar quarter of each year in accordance with the standards specified in 40 CFR Part 75 Subpart G. The submission must be in an electronic format which meets the requirements of EPA's Electronic Data Reporting (EDR) convention, or in any other suitable format as approved by the Department and the NETS Administrator.

2. The Authorized Account Representative for each budget unit which uses fuel flow, default emission rates, or non-CEMS heat input methodologies to determine NO_x emissions, must submit to the Administrator all emissions and operating information for the second and third calendar quarters of each year in accordance with the standards specified in 40 CFR Part 75 Subpart G. The second quarter information will only contain data for May and June of each calendar year. The

submission must be in an electronic format which meets the requirements of EPA's Electronic Data Reporting (EDR) convention, or in any other suitable format as approved by the Department and the NETS Administrator.

(b) The quarterly reports must contain the NO_x emission in pounds per hour for every hour, and cumulative quarterly and seasonal NO_x emission data in pounds, in a format consistent with the EDR specified by the NETS Administrator.

(c) Any person who owns, leases, operates or controls a budget unit subject to 40 CFR Part 75 must submit this data to EPA as part of the quarterly reports submitted to EPA to comply with 40 CFR Part 75.

(d) Any person who owns, leases, operates or controls a budget unit not subject to 40 CFR Part 75 must submit the quarterly reports within 30 days after the end of each calendar quarter for which they must report under 310 CMR 7.27(13)(a). For units which only report for the second and third quarters, the second quarter information will only contain data for the months of May and June.

(e) Should a budget unit be permanently or temporarily shutdown, the Department will grant an exemption from the requirements of 310 CMR 7.27(11), (12) and (13) upon request from the budget unit's Authorized Account Representative, and provided the shutdown is part of an approved emission control plan or approved under 310 CMR 7.00: Appendix B. The request must include an identification of the budget unit being shutdown, and the date of shutdown. Department approval of the request for shutdown exemption will be sent to the Authorized Account Representative, and the NETS Administrator, and may contain conditions as deemed necessary by the Department.

(14) Compliance Determination at the End of a Season.

(a) The data reported to the NETS Administrator by the Authorized Account Representative for a Budget unit in accordance with 310 CMR 7.27(13), and the allowance allocations and transfers recorded in the NATS compliance account for that budget unit, are the basis for determining compliance with 310 CMR 7.27.

(b) Each year during the period November 1 through December 31, inclusive, the Authorized Account Representative for each budget unit must request the NATS Administrator to deduct current year allowances from the compliance account equivalent to the NO_x emissions from the budget unit in the current control period. The request must be submitted by the Authorized Account Representative to the NATS Administrator no later than the allowance transfer deadline (December 31). The request must identify the compliance account from which the deductions should be made, and if desired, the serial numbers of the allowances to be deducted. If no serial numbers are identified, allowances useable for that compliance period will be deducted first followed by the deduction of transferred allowances. Banked

allowances may be used in place of current year allowances subject to the conditions in 310 CMR 7.27(9).

(c) The Administrator will determine whether there are sufficient allowances in the compliance account to cover the control period NOx emissions. Regardless of the Authorized Account Representative's request for deductions submitted pursuant to 310 CMR 7.27(14)(b), the Administrator will deduct a number of allowances equal to the current control period's NOx emissions from the budget unit's compliance account.

(d) Should the emissions of the budget unit in the current control period exceed the allowances in the budget unit's compliance account for the control period, the budget unit is responsible for obtaining additional allowances by the allowance transfer deadline. The total number of allowances in the compliance account, including allowance transfers properly submitted to the NATS Administrator by the allowance transfer deadline, must equal or exceed the control period emissions of NOx rounded to the nearest whole ton.

(e) If the total number of allowances in the budget unit's compliance account, including allowance transfers submitted to the NATS Administrator by the allowance transfer deadline, does not equal or exceed the control period emissions of NOx from that budget unit, the Department will apply deduction penalties according to 310 CMR 7.27(16), and may take any additional enforcement action it deems appropriate.

(15) Compliance Certification.

(a) For each control period, the Authorized Account Representative for the budget unit must submit an annual compliance certification to the Department.

(b) The compliance certification must be submitted no later than the allowance transfer deadline (December 31) of each year.

(c) The compliance certification must contain, at a minimum:

1. Identification of the budget unit, including name, unit address, name of Authorized Account Representative and NATS account number.
2. A statement that emissions data has been submitted to the NETS in accordance with the procedures established in 310 CMR 7.27(13) and in conformance with the requirements of the NETS Administrator.
3. A statement that the budget unit operated in compliance with the allowances allocated for the control period, including those obtained through transfer by the allowance transfer deadline, and holds sufficient allowances in its compliance

account for the control period, as of the allowance transfer deadline, to equal or exceed the recorded emissions for the control period.

4. A statement certifying that the monitoring data reflected actual operations at the budget unit.

5. A statement that all emissions from the budget unit were accounted for, either through the applicable monitoring or through application of the appropriate missing data procedures.

6. A statement to indicate whether there were any changes in the method of operation of the budget unit or the method of monitoring the budget unit during the current year.

(d) The Department may verify compliance by whatever means necessary, including but not limited to:

1. Inspection of a unit's operating records;

2. Obtaining information on allowance deduction and transfers from the NATS;

3. Obtaining information on emissions from the NETS;

4. Testing emission monitoring devices; and

5. Requiring the person who owns, leases, operates or controls a budget unit to conduct emissions testing under the supervision of the Department.

(e) In control period 2002, if a budget unit has failed to demonstrate compliance with 310 CMR 7.27(15) (relating to failure to meet compliance requirements), then NO_x allowances to be allocated in calendar year 2003 under 310 CMR 7.28 and beyond may be withheld in accordance with 310 CMR 7.27(16).

(16) Penalties.

(a) If the total tons of NO_x emitted from a budget unit exceed the number of current year or banked allowances held in the budget unit's compliance account for the control period as of the allowance transfer deadline, the Department will automatically deduct allowances from the budget unit's allocation for the next control period at a rate of three allowances for every one ton of excess emissions.

(b) In addition to the allowance deduction penalty provisions in 310 CMR 7.27(16)(a), the Department will enforce the provisions of 310 CMR 7.27 pursuant to applicable law and regulations. The following conditions apply:

1. For determining the number of days of violation, any excess emissions for the control period presume that each day in the control period constitutes a day in violation (153 days) unless the budget unit can demonstrate, to the satisfaction of the Department, that a lesser number of days should be considered.

2. Each ton of excess emission is a separate violation.

(17) Account Maintenance Fees - Reserved

(18) Audit.

(a) The Department will conduct, or have conducted, an audit of 310 CMR 7.27 beginning in 2002 and every three years thereafter to ensure that the program is providing expected performance with regards to emissions monitoring and allowance use. The audits will include, as appropriate, confirmation of the accuracy of emissions reporting through validation of CEMS and data acquisition systems at budget units, and review of allowance transfer and use by budget units. Each audit will examine the extent to which banked allowances have, or have not, contributed to emissions in excess of the emissions budget for a given control period. The periodic audit will also provide an assessment of whether the program is consistent with the requirements for reasonable further progress and the Massachusetts attainment demonstration.

(b) In addition to the Department audit, the Department may request a third party audit of the program.

(c) Should an audit result in recommendations for revisions at a state level, the Department will consider the audit recommendations, in consultation with the OTC states, and if necessary, propose the appropriate revisions as changes to current procedures or modifications to 310 CMR 7.27.