SUBCHAPTER 19. CONTROL AND PROHIBITION OF AIR POLLUTION FROM OXIDES OF NITROGEN

Authority

N.J.S.A. 13:1B-3, 13:1D-9, and 26:2C-1 et seq., in particular 26:2C-9(c) and 19.

Source and Effective Date

R.1993 d.682, effective December 20, 1993 (operative January 23, 1994).
See: 25 N.J.R. 631(a), 25 N.J.R. 5957(a).

7:27-19.1 Definitions

The following words and terms, when used in this subchapter, have the following meanings, unless the context clearly indicates otherwise:

"Air contaminant" means any substance, other than water or distillates of air, present in the atmosphere as solid particles, liquid particles, vapors or gases.

"Ambient air quality standard" means a limit on the concentration of an air contaminant in the general outdoor atmosphere as set forth in N.J.A.C. 7:27-13 or 40 CFR 50.

"Alter" means to effect an alteration of equipment or control apparatus.

"Alteration" shall have the meaning assigned to it at N.J.A.C. 7:27-8.1.

"Alternative maximum allowable emission rate" means a maximum allowable emission rate, set by the Department on a site-specific basis pursuant to N.J.A.C. 7:27-19.13.

"Anthracite coal" means coal that is classified as anthracite according to the ASTM Standard Specification for Classification of Coals by Rank, ASTM D 388-77, incorporated herein by reference. This specification can be obtained from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

"Asphalt" means a solid, semisolid, or liquid material, produced by mixing bituminous substances together with gravel, crushed rock or similar materials, and used commonly as a coating or paving.

"ASTM" means the American Society for Testing and Materials.

"Averaging" means complying with the requirements of this subchapter pursuant to N.J.A.C. 7:27-19.6, Emissions averaging.

"Averaging unit" means an individual source operation or item of equipment which is included in a designated set for the purpose of averaging pursuant to N.J.A.C. 7:27-19.6.

"Base year" means calendar year 1990 or other calendar year determined pursuant to N.J.A.C. 7:27-19.20(d)1, in connection with a plan for seasonal fuel switching.

"Batch type asphalt plant" means an asphalt plant where the aggregate and asphalt cement or other binder are mixed in equipment other than a rotary dryer.

"Bituminous coal" means coal that is classified as bituminous according to the ASTM Standard Specification for Classification of Coals by Rank, ASTM D 388-77. This specification can be obtained from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

"Borosilicate recipe" means a formula for making glass using 60 to 80 percent silicon dioxide, five to 35 percent boric oxides, and four to 23 percent other oxides.

"British thermal unit (BTU)" means the quantity of heat required to raise the temperature of one avoirdupois pound of water one degree Fahrenheit at 39.1 degrees Fahrenheit.

"Calendar day" means the 24 hour period from 12:00 o'clock midnight to 12:00 o'clock midnight the following day.

"Carbon monoxide (CO)" means a colorless, odorless, tasteless gas at standard conditions, having a molecular composition of one carbon atom and one oxygen atom.

"Certificate" means either an operating certificate or a temporary operating certificate.

"Cleaner fuel" means a fuel other than a combustion source's primary fuel, the combustion of which results in a rate of NO_x emissions that is less than the rate of NO_x emissions when the primary fuel is combusted, all other circumstances being equal.

"Continuous emissions monitor" or "CEM" means a device which continuously measures the emissions from one or more source operations.

"Continuous monitoring system" or "CMS" means a system designed to continuously measure various parameters at a facility which may affect or relate to a facility's emissions. Components of a CMS include, but are not limited to, any continuous emissions monitor (CEM), continuous opacity monitor (COM), continuous process monitor (CPM), or any other constantly operating measuring device and recording device approved by the Department to perform one or more of the functions of a CMS.

"CFR" means the Code of Federal Regulations.

"Coal" means anthracite coal, bituminous coal, coke, lignite, nonbanded coal, and/or subbituminous coal.

"Coke" means a fused, cellular, porous substance that remains after free moisture and the major portion of the volatile materials have been distilled from bituminous coal and other carbonaceous material by heating it in the absence of air or with a limited supply of air.

"Combined cycle gas turbine" means a gas turbine in which heat is recovered from the turbine's exhaust gases to heat water or generate steam.

"Combustion source" means a source operation or item of equipment which combusts fuel.

"Commercial container glass" means clear or colored glass made of soda-lime recipe, which is formed into bottles, jars, ampoules or other containers, but does not include specialty container glass.

"Commercial fuel" means solid, liquid, or gaseous fuel which is ordinarily produced, manufactured, or sold for the purpose of creating heat.

"Comparable demand day" means, for any day in which an averaging unit is not operating, a day on which demand for electric power was within 10 percent of the demand on the day in question.

"Control apparatus" means any device which prevents or controls the emission of any air contaminant directly or indirectly into the outdoor atmosphere.

"Criteria pollutant" means any air contaminant for which a NAAQS has been promulgated under 40 CFR 50 or for which a New Jersey Ambient Air Quality Standard has been promulgated in N.J.A.C. 7:27-13.

"Cyclone-fired boiler" means a boiler which combusts fuel in a horizontal water-cooled cylinder before releasing the combustion gases into the boiler.

"Delivery vessel" means any mobile storage tank including, but not limited to, tank trucks or railroad tank cars. This term does not include marine tank vessels.

"Department" means the New Jersey Department of Environmental Protection and Energy.

"Designated set" means the averaging units which an owner or operator is authorized by the Department to include in an averaging plan pursuant to N.J.A.C. 7:27-19.6.

"Distillates of air" means helium (He), nitrogen (N_2), oxygen (O_2), neon (Ne), argon (Ar), krypton (Kr), xenon (Xe), and carbon dioxide (CO_2).

"Dry bottom utility boiler" means a utility boiler equipped with an ash disposal hopper bottom with sufficient cooling surface so that ash particles, when removed from the hopper, are in a solid state.

"Drum mix asphalt plant" means an asphalt plant where the asphalt cement or other binder is added to the aggregate while the aggregate is still in the rotary dryer.

"Duct burner" means an item of equipment used with a combined cycle gas turbine or a stationary internal combustion engine to increase the steam generating capacity of heat recovery steam generators. A duct burner consists of pipes and small burners that are placed in the exhaust

duct upstream of the heat recovery steam generator; the duct burner allows firing of additional fuel to increase the exhaust heat energy. A duct burner is a type of indirect heat exchanger.

"Electric generating unit" means a combustion source used for generating electricity that delivers all or part of its power to the electric power distribution grid for commercial sale.

"Electric generating utility" means any person who is subject to regulation as a public utility (as defined in N.J.S.A. 48:2-13) for its provision of electric power to another person or any person who would be subject to such regulation were it not for that person's status as a municipality.

"Emergency capacity" means the generation of electricity by an electric generating unit at a rate in excess of the unit's maximum normal power output rating. This maximum normal power output rating shall be that agreed upon by PJM and the owner or operator of the unit, and published by the owner or operator.

"Emergency generator" means a combustion source used to provide mechanical, thermal or electrical energy only when the facility's primary source of that energy has been rendered inoperable by circumstances beyond the control of the owner or operator of the facility. The term does not include equipment used in circumstances other than emergencies, such as during high electric demand days. The term also does not include equipment which continues to be used after the primary energy source either has become operable again or should have become operable had the owner or operator made reasonable efforts to repair it.

"EPA" means the United States Environmental Protection Agency.

"Equipment" means any device capable of causing the emission of an air contaminant either directly or indirectly to the outdoor atmosphere, and any stack or chimney, conduit, flue, duct, vent or similar device connected or attached to, or serving the equipment. This term includes, but is not limited to, a device in which the preponderance of the air contaminants emitted is caused by a manufacturing process.

"Face-fired boiler" means a furnace firing design in which the burners are mounted on one or more walls of the furnace.

"Facility" means the combination of all structures, buildings, equipment, storage tanks, source operations, and other operations located on one or more contiguous or adjacent properties owned or operated by the same person. This term does not include delivery vessels.

"Federally enforceable" means all limitations and conditions on operation, production, or emissions which can be enforced by EPA pursuant to authorities which include, but are not limited to, those established in:

1. Any standards of performance for new stationary sources (NSPS) promulgated at 40 CFR 60;

2. Any national emission standard for hazardous air pollutants (NESHAP) promulgated at 40 CFR 61;

3. Any provision of an applicable SIP;

4. Any permit issued pursuant to requirements established at 40 CFR 51, Subpart I; 40 CFR 52.21; 40 CFR 70; or 40 CFR 71; or

5. Any permit issued pursuant to requirements established under the Air Pollution Control Act, N.J.S.A. 26:2C-1 et seq., and this chapter.

"Fixed capital cost" means the capital needed to provide all the depreciable components of a facility, item of equipment or source operation.

"Fuel" means combustible material burned in boilers, furnaces or other machinery to generate heat or other forms of energy. This term includes commercial fuel and non-commercial fuel.

"Fuel oil" means a liquid or liquefiable petroleum product burned for the generation of light, heat or power and derived directly or indirectly from crude oil.

"Gas turbine" means an internal combustion engine fueled by liquid or gaseous fuel, which generates mechanical energy in the form of a rotating shaft which is used to drive an electric generator or other industrial equipment.

"Glass" means a hard, amorphous inorganic substance made by fusing silicates, and sometimes borates and phosphates, with certain basic oxides.

"Glass manufacturing furnace" means equipment which uses heat for the production of glass.

"Heat input" means heat derived from the combustion of fuel put into any boiler, furnace or other piece of equipment. This term does not include the heat from preheated combustion air, recirculated flue gases or exhaust gases from other sources.

"Higher heating value" means the total heat obtained from the complete combustion of a fuel which is at 60 degrees Fahrenheit when combustion begins, and the combustion products of which are cooled to 60 degrees Fahrenheit before the quantity of heat released is measured.

"Horsepower hour" means a unit of energy or work, equal to the work done by a mechanism with a power output of one horsepower over a period of one hour.

"Incinerator " means any device, apparatus, equipment, or structure using combustion or pyrolysis for destroying, reducing or salvaging any material or substance, but does not include thermal or catalytic oxidizers used as control apparatus on manufacturing equipment. For the purposes of this subchapter, this term includes (without limitation) any thermal

destruction facility which is a resource recovery facility, as such terms are defined in N.J.A.C. 7:26-1.4.

"Indirect heat exchanger" means equipment in which heat from the combustion of fuel is transferred by conduction through a heat-conducting material to a substance being heated, so that the latter is not contacted by, and adds nothing to, the products of combustion. Examples of indirect heat exchangers include boilers, duct burners and process heaters.

"Innovative control technology" means a NO_x control measure that has a substantial likelihood of achieving lower continuous levels of NO_x emissions than are required under this subchapter, but has not been adequately demonstrated and is not available to be implemented before May 31, 1995. An item of equipment or control apparatus, a change in a process, or a pollution prevention strategy may qualify as an innovative control technology.

"Interim period" means the period of time beginning on May 31, 1995, and ending when phased compliance under N.J.A.C. 7:27-19.21, 19.22 or 19.23 (as applicable) is to be completed.

1. For purposes of phased compliance for repowering pursuant to N.J.A.C. 7:27-19.21, the interim period ends on the date when repowering of a combustion source is to be completed.

2. For purposes of phased compliance for reasons of practicability pursuant to N.J.A.C. 7:27-19.22, the interim period ends on the date when a combustion source is to attain full compliance with this subchapter.

3. For purposes of phased compliance for innovative control technology pursuant to N.J.A.C. 7:27-19.23, the interim period ends on the date when the innovative control technology is to be fully implemented.

"Lean-burn stationary internal combustion engine" means a stationary internal combustion engine which operates at an air-to-fuel ratio fuel-lean of stoichiometric and cannot operate with an exhaust oxygen concentration less than one percent.

"Lb/MMBTU" means pounds per million British Thermal Units.

"Lignite" means coal that is classified as lignite A or B according to the ASTM Standard Specification for Classification of Coals by Rank, ASTM D 388-77. This specification can be obtained from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

"Liquid particles" means particles which have volume but are not of rigid shape.

"Load dispatcher" means the employee or agent of the electric power distribution network, to which the electric generating unit is connected, who is responsible for determining that an MEG alert is the only feasible

means of preventing or mitigating either a voltage reduction or an interruption in electric service or both.

"Major NO_x facility" means any facility which has the potential to emit 25 or more tons of NO_x per year.

"Manufacturing process" means any action, operation or treatment embracing chemical, industrial, manufacturing, or processing factors, methods or forms including, but not limited to, furnaces, kettles, ovens, converters, cupolas, kilns, crucibles, stills, dryers, roasters, crushers, grinders, mixers, reactors, regenerators, separators, filters, reboilers, columns, classifiers, screens, quenchers, cookers, digesters, towers, washers, scrubbers, mills, condensers or absorbers.

"Maximum allowable emission rate" means the maximum amount of an air contaminant which may be emitted into the outdoor air at any instant in time or during any prescribed interval of time.

"Maximum gross heat input rate" means the maximum amount of fuel a combustion source is able to combust in a given period as stated by the manufacturer of the combustion source. This term is expressed in BTUs per hour, based on the higher heating value of the fuel.

"MEG alert" means a period in which one or more electric generating units are operated at emergency capacity at the direction of the load dispatcher, in order to prevent or mitigate voltage reductions or interruptions in electric service, or both. A MEG alert begins and ends as follows:

1. An alert begins when one or more electric generating units are operated at emergency capacity after receiving notice from the load dispatcher, directing the electric generating unit to do so; and

2. An alert ends when the electric generating unit ceases operating its electric generating units at emergency capacity.

"MMBTU" means million British Thermal Units.

"National Ambient Air Quality Standard (NAAQS)" means an ambient air quality standard promulgated at 40 CFR 50.

"Natural gas reburning" means a control technology where natural gas is injected into a boiler downstream of the main combustion zone in order to reduce the amount of NO_x in the exhaust gas.

"NESHAP" means a National Emission Standard for a Hazardous Air Pollutant as promulgated under 40 CFR 61.

"Nitrogen dioxide (NO_2)" means a gaseous compound at standard conditions, having a molecular composition of one nitrogen atom and two oxygen atoms.

"Nitrogen oxide (NO)" means a gaseous compound at standard conditions, having a molecular composition of one nitrogen atom and one oxygen atom.

"Nonbanded coal" means coal that is classified as nonbanded according to the ASTM Standard Definition of Terms Relating to Megascopic Description of Coal and Coal Beds and Microscopical Description and Analysis of Coals, ASTM D 2796-77, incorporated herein by reference. This document may be obtained from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

"Non-commercial fuel" means solid, liquid or gaseous fuel which is not ordinarily produced, manufactured, or sold for the purpose of creating heat.

"Non-utility boiler" means any steam generating unit which is not a utility boiler.

"NSPS" means Standards of Performance for New Stationary Sources as promulgated under 40 CFR 60, commonly referred to as New Source Performance Standards.

"Operating certificate" means a "Certificate to Operate Control Apparatus or Equipment" issued by the Department pursuant to the Air Pollution Control Act of 1954, specifically N.J.S.A. 26:2C-9.2, which is valid for a period of five years from the date of issuance, unless sooner revoked by the Department.

"Oxides of nitrogen (NO_x)" means all oxides of nitrogen, except nitrous oxide, as measured by test methods approved by the Department and EPA, such as the test methods set forth at 40 CFR 60 Appendix A Method 7E.

"Particles" means any material, except uncombined water, which exists as liquid particles or solid particles at standard conditions.

"Peak daily heat input rate," for a combustion source or for a designated set that has no operating history, means the maximum gross heat input rate of the source or of all the sources in the designated set. For a combustion source or for a designated set that has an operating history, "peak daily heat input rate" means the average of the daily heat inputs to a combustion source or to a designated set on the five days on which the heat input was highest, over the following period:

1. For a combustion source or for a designated set that has been operating for at least five years, the five years preceding the date on which the owner or operator applied to the Department for approval of an emissions averaging plan, pursuant to N.J.A.C. 7:27-19.6; and

2. For a combustion source that has been operating for less than five years, the entire period during which the combustion source has been operating.

"Pennsylvania-New Jersey-Maryland Interconnection" or "PJM" means the combination of electric generating utilities, linked physically and through contractual arrangements, for coordinated electricity planning and

operation in an area that as of 1994 includes New Jersey, Maryland, Pennsylvania, Virginia, Delaware and the District of Columbia.

"Permit" means a "Permit to Construct, Install or Alter Control Apparatus or Equipment" issued by the Department pursuant to the Air Pollution Control Act of 1954, specifically N.J.S.A 26:2C-9.2.

"Person" means any individual or entity and shall include, without limitation, corporations, companies, associations, societies, firms, partnerships and joint stock companies, and shall also include, without limitation, all political subdivisions of this State or any agencies or instrumentalities thereof.

"Potential to emit" means the capability of a source operation or of a facility to emit an air contaminant at maximum design capacity, except as constrained by any Federally enforceable condition. Such Federally enforceable conditions may include, but are not limited to, the effect of installed control apparatus, restrictions on the hours of operation, and restrictions on the type or amount of material combusted, stored, or processed.

"Ppmv" means a measurement of the concentration of a specified substance in air, expressed as the number of parts of the specified substance per million parts of air, by volume, including the number of parts contributed by water.

"Ppmvd" means a measurement of the concentration of a specified substance in air, expressed as the number of parts of the specified substance per million parts of air, by volume, not including the number of parts contributed by water.

"Primary fuel" means the fuel that provided the greatest heat input (expressed in BTU) to a combustion source in the base year.

"Process heater" means an item of equipment in which heat from fuel combustion is transferred to fluids contained in tubes without coming into contact with the fluid. A process heater is a type of indirect heat exchanger.

"Rebricking" means the replacement of damaged or worn bricks of a glass manufacturing furnace while the furnace does not contain molten glass.

"Reconstruction" means the replacement of components of an existing facility, item of equipment or source operation to such an extent that the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct an entirely new facility, item of equipment or source operation.

"Refinery fuel gas" means gaseous fuel derived from the refining process and used as a fuel at the refinery where it was produced.

"Refining process" means the combination of physical and chemical operations including, but not limited to, distillation, cracking, and reformulation, performed on crude oil (or derivatives of crude oil) in order to produce petroleum products.

"Regenerative cycle gas turbine" means a gas turbine which recovers heat from its exhaust gases and uses that heat to preheat the combustion air which is drawn into the gas turbine.

"Repowering" means the series of actions described in 1 and 2 below by an owner or operator:

1. The permanent ceasing of the operations of the steam generator in a steam generating unit, the gas turbine in a simple-cycle or combined-cycle gas turbine, or any other combustion source; and

2. The installation in the State of a new combustion source or the purchase of heat or power from the owner of a new combustion source that is located in the State that:

i. Has a maximum gross heat output rate that is at least 50 percent of the maximum gross heat output rate of the combustion source that is shut down under 1 above, or has a power output rate that is at least 50 percent of the power output rate of the combustion source that is shut down; and

ii. Incorporates technology capable of controlling multiple combustion emissions simultaneously with improved fuel efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of November 15, 1990.

"Rich-burn stationary internal combustion engine" means a stationary internal combustion engine in which the concentration of oxygen in the exhaust is no greater than one percent.

"Rotary dryer" means a cylindrical device, which rotates about an axis, through which hot gases are passed for the purpose of removing moisture from any solid.

"Sampling" means the selective collection of a quantity of raw materials, process intermediates, products, by-products or wastes.

"Selective noncatalytic reduction" or "SNCR" means a noncombustion technology that reduces NO_x emissions without a catalyst by injecting a reducing agent (such as ammonia, urea or cyanuric acid) into the flue gas, downstream of the combustion zone; the injection of the reducing agent converts NO_x to molecular nitrogen, water, and (if the reducing agent is urea or cyanuric acid) carbon dioxide (CO_2).

"Significant air quality impact level" means an increase, greater than or equal to that specified in Table 1 at N.J.A.C. 7:27-18.4, in the ambient air concentration of a criteria pollutant.

"Simple cycle gas turbine" means a gas turbine which does not recover heat from its exhaust gases.

"Soda lime recipe" means a formula for making glass using 60 to 75 percent silicon dioxide and 25 to 40 percent other oxides and no lead oxides.

"Solid particles" means particles of rigid shape and definite volume.

"Source emission testing" means the testing of a discharge of any air contaminant from equipment, control apparatus or source operation through any stack or chimney.

"Source operation" means any process or any identifiable part thereof that emits or can reasonably be anticipated to emit any air contaminant either directly or indirectly into the outdoor atmosphere.

"Specialty container glass" means clear or colored glass made of soda-lime recipe, which is produced to meet the specifications of any standard set forth by The United States Pharmacopeia or The National Formulary, incorporated herein by reference, and which is used for pharmaceutical, cosmetic or scientific purposes. The referenced specifications can be obtained from the United States Pharmacopeial Convention, Inc., 12601 Twinbrook Parkway, Rockville, MD 20852.

"Stack or chimney" means a flue, conduit or opening designed, constructed, or used for the purpose of emitting any air contaminant into the outdoor atmosphere.

"Standard conditions" means 70 degrees Fahrenheit (21.1 degrees Celsius) and one atmosphere pressure (14.7 pounds per square inch absolute or 760.0 millimeters of mercury).

"State implementation plan (SIP)" means a plan for the attainment of any NAAQS, prepared by a state and approved by the EPA pursuant to Section 110 of the Clean Air Act (42 USC 1857 et seq.).

"Stationary gas turbine" means any simple cycle gas turbine, regenerative cycle gas turbine or combined cycle gas turbine that is not self-propelled. The term includes a gas turbine of any of these types which is mounted on a vehicle for portability.

"Stationary internal combustion engine" means any internal combustion engine that is not self-propelled. This term includes internal combustion engines which are mounted on vehicles for portability.

"Steam generating unit" means any furnace, boiler, or other device which combusts commercial fuel for the purpose of producing steam.

"Subbituminous coal" means coal that is classified as subbituminous according to the ASTM Standard Specification for Classification of Coals by Rank, ASTM D 388-77. This document may be obtained from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

"Tangential-fired boiler" means a furnace firing design where the burners are mounted at the corners of the furnace chamber.

"Testing" means a procedure for determining the kind and amount of one or more air contaminants, potential air contaminants or air contaminant precursors present. This term includes, but is not limited to, sampling, sample custody, analysis, and reporting of findings.

"Use" means to engage in any form or manner of operation of equipment or control apparatus subsequent to the installation of such equipment or control apparatus. This term includes any trial operation.

"Utility boiler" means a steam generating unit owned by an electric generating utility which is used for generating electricity for commercial use.

"Volatile organic compound," or "(VOC)," means any compound of carbon (other than carbon monoxide, carbon dioxide, carbonic acid, metallic carbonates, metallic carbides and ammonium carbonate) which participates in atmospheric photochemical reactions. For the purpose of determining compliance with emission limits or content standards, VOC shall be measured by test methods which have been approved in writing by the Department. This term does not include the compounds which EPA has excluded from its definition of VOC in the list set forth at 40 CFR 51.100(s)(1), which is incorporated by reference herein, together with all amendments and supplements. The list at 40 CFR 51.100(s)(1) currently includes the compounds and the classes of perfluorocarbons set forth below:

Compounds

methane
ethane
methylene chloride (dichloromethane)
1,1,1-trichloroethane (methyl chloroform)
trichlorofluoromethane (CFC-11)
dichlorodifluoromethane (CFC-12)
trifluoromethane (FC-23)
1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113)
1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114)
chloropentafluoroethane (CFC-115)
chlorodifluoromethane (HCFC-22)
2,2-dichloro-1,1,1,-trifluoroethane (HCFC-123)
2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)
pentafluoroethane (HFC-125)
1,1,2,2-tetrafluoroethane (HFC-134)
1,1,1,2-tetrafluoroethane (HFC-134a)
1,1-dichloro-1-fluoroethane (HCFC-141b)
1-chloro-1,1-difluoroethane (HCFC-142b)

1,1,1-trifluoroethane (HFC-143a)
1,1-difluoroethane (HFC-152a)
parachlorobenzotrifluoride (PCBTF)
cyclic, branched or linear completely methylated siloxanes

Classes of perfluorocarbons:

Cyclic, branched, or linear, completely fluorinated alkanes
Cyclic, branched, or linear, completely fluorinated ethers with no unsaturations
Cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations
Sulfur containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine

If there is any conflict between the list at 40 CFR 51.100(s)(1) and the list set forth above, the list at 40 CFR 51.100(s)(1) shall control.

"Wet bottom utility boiler" means a utility boiler in which the ash is removed from the boiler in a molten state.

Administrative Correction.
See: 27 N.J.R. 1406(a).
Amended by R.1995 d.214, effective April 17, 1995 (operative May 23, 1995).
See: 26 N.J.R. 3298(a), 27 N.J.R. 1581(a).

7:27-19.2 Purpose, scope and applicability

(a) This subchapter establishes requirements and procedures concerning the control and prohibition of air pollution by oxides of nitrogen. The purpose of this subchapter is to require any stationary source or group of sources, located within a contiguous area and under common control, that emits or has the potential to emit at least 25 tons of NO_x per year, to implement reasonably available control technology (RACT) to control NO_x emissions. EPA defines RACT to mean the lowest emission limitation that a particular source is capable of meeting by the application of air pollution control technology which is reasonably available considering technological and economic feasibility.

(b) The following types of equipment and source operations are subject to the provisions of this subchapter:

1. Any utility boiler;

2. Any non-utility boiler or other indirect heat exchanger which has a maximum gross heat input rate of at least 20 million BTUs per hour;

3. Any stationary gas turbine which has a maximum gross heat input rate of at least 30 million BTUs per hour;

4. Any stationary internal combustion engine capable of producing an output of more than 500 horsepower;

5. Any rotary dryer having the potential to emit at least 25 tons of NO_x per year, and located at an asphalt plant;

6. Any glass manufacturing furnace producing commercial container glass, and having a maximum potential production rate of at least 14 tons of glass removed from the furnace per day and has the potential to emit more than 10 tons of NO_x per year;

7. Any glass manufacturing furnace producing specialty container glass, and having a maximum potential production rate of at least seven tons of glass removed from the furnace per day and has the potential to emit more than 10 tons of NO_x per year; and

8. Any glass manufacturing furnace producing borosilicate recipe glass, and having a maximum potential production rate of at least five tons of glass removed from the furnace per day and has the potential to emit more than 10 tons of NO_x per year.

(c) Any major NO_x facility containing any equipment or source operation not specifically listed in (b) above, which equipment or source operation has the potential to emit more than 10 tons of NO_x per year, is subject to the provisions of this subchapter.

(d) Notwithstanding the provisions of (b) and (c) above, any emergency generator which is subject to a Federally enforceable limitation or condition restricting its operations to less than 500 hours during any consecutive 12 month period, and which does not have the potential to emit at least 25 tons of NO_x during its annual period of operations, is not subject to this subchapter.

(e) Notwithstanding the provisions of (b) and (c) above, this subchapter does not apply to any equipment or source operation for which the EPA determines (when the EPA approves a plan or plan revision) that net air quality benefits are greater in the absence of reductions of oxides of nitrogen from such equipment or source operation.

(f) The owner or operator of a facility containing any equipment or source operation listed in (b) above may apply to the Department for an exemption from this subchapter. The procedure for obtaining the Department's approval of such an exemption is set forth in N.J.A.C. 7:27-19.14. The Department shall approve the exemption only if the facility satisfies the requirements of (f)1 and 2 below:

1. The facility's potential to emit NO_x is less than 25 tons per year; and

2. The facility's potential to emit NO_x on any calendar day from May 1 to September 15 is less than 137 pounds per day.

Amended by R.1995 d.214, effective April 17, 1995 (operative May 23, 1995).
See: 26 N.J.R. 3298(a), 27 N.J.R. 1581(a).

7:27-19.3 General provisions

(a) Each owner and each operator of any equipment or source operation subject to this subchapter is responsible for ensuring compliance with all requirements of this subchapter. If there is more than one owner and operator of the equipment or source operation, each owner and each operator is jointly and severally liable for any penalties for violations of this subchapter.

(b) The emission limitations specified in this subchapter become operative on May 31, 1995, except as provided in N.J.A.C. 7:27-19.4(c) and 19.10(d).

(c) For any alteration of equipment or source operations necessary to comply with the NO_x emission limits in this subchapter, which alteration does not involve a reconstruction of the equipment or source operation, the use of control measures which incorporate current advances in the art of air pollution control for those types of control measures shall be deemed to satisfy the requirements of N.J.A.C. 7:27-8.8(d). For example, if a utility boiler achieves compliance with an emission limit under this subchapter by installing a low-NO_x burner, the requirements of N.J.A.C. 7:27-8.8(d) are satisfied if the low-NO_x burner installed incorporates current advances in the art of air pollution control for low-NO_x burners.

(d) By April 23, 1994, the owner or operator of any facility, equipment or source operation which is in operation prior to January 23, 1994 and is subject to this subchapter shall:

1. Apply for permits for all equipment and control apparatus necessary for compliance with this subchapter; and

2. If the owner or operator seeks to comply with this subchapter pursuant to the facility-specific NO_x emission limit provision of N.J.A.C. 7:27-19.13, submit to the Department a facility-specific NO_x control plan pursuant to N.J.A.C. 7:27-19.13.

(e) After receipt of a written request from an owner or operator for an extension of the deadline set forth in (d) above or the deadline set forth at N.J.A.C. 7:27-19.13(b), the Department may authorize a 60-day renewable extension, provided that the request includes a statement, certified in accordance with N.J.A.C. 7:27-8.24, that notwithstanding the request for an extension, the facility will comply with all applicable emission limits set forth in this subchapter by the May 31, 1995 deadline established in (b) above. Such extension may be renewed by the Department upon the written request of the owner or operator provided that the request of the renewal shall also include a statement, certified in accordance with N.J.A.C. 7:27-8.24, that notwithstanding the request for an extension, the facility will comply with all applicable emission limits set forth in this subchapter by the May 31, 1995 deadline established in (b) above. Written

requests for the extension of a deadline submitted pursuant to this subsection shall be addressed to:

Assistant Director, Air and Environmental Quality Enforcement
Division of Enforcement Field Operations
Department of Environmental Protection
CN 422
401 East State Street, 4th Floor
Trenton, New Jersey 08625-0422

(f) In lieu of complying with the applicable emission limits set forth at N.J.A.C. 7:27-19.4, 19.5, 19.7, 19.8, 19.9 or 19.10, the owner or operator of a utility boiler, stationary gas turbine, non- utility boiler, indirect-fired heat exchanger, stationary internal combustion engine, asphalt plant or glass manufacturing furnace may comply with one of the following, or with a combination of (f)1 and 3 below:

1. An emissions averaging plan approved by the Department pursuant to N.J.A.C. 7:27-19.6 and 19.14, which includes the combustion source in question as an averaging unit;

2. An alternative maximum allowable emission rate for the unit, approved by the Department pursuant to N.J.A.C. 7:27-19.13;

3. A seasonal fuel switching plan for the unit, approved by the Department pursuant to N.J.A.C. 7:27-19.14 and 19.20; or

4. A plan for phased compliance for the unit, approved by the Department pursuant to N.J.A.C. 7:27-19.14 and N.J.A.C. 7:27-19.21, 19.22 or 19.23.

(g) The owner or operator of any facility, equipment or source operation which commences operation on or after January 23, 1994 shall ensure that such facility, equipment of source operation complies with the requirements of this subchapter from the date of commencement of operation.

(h) A person required to provide notice to the Department under this subchapter shall send the notice to the applicable address listed below:

1. If the notice concerns a combustion source located in Burlington County, Mercer County, Middlesex County, Monmouth County or Ocean County, the person shall send the notice to:

Central Regional Office
Horizon Center
CN 407
Robbinsville, NJ 08625-0407

2. If the notice concerns a combustion source located in Bergen County, Essex County, Hudson County or Union County, the person shall send the notice to:

Metro Regional Office
2 Babcock Place
West Orange, NJ 07052-5504

3. If the notice concerns a combustion source located in Hunterdon County, Morris County, Passaic County, Somerset County, Sussex County or Warren County, the person shall send the notice to:

Northern Regional Office
1259 Route 46 East
Parsippany, NJ 07054-4191

4. If notice concerns a combustion source located in Atlantic County, Camden County, Cape May County, Cumberland County, Gloucester County or Salem County, the person shall send the notice to:

Southern Regional Office
20 East Clementon Road
3rd Floor, Suite 302
Gibbsboro, NJ 08026-1175

5. If the notice concerns an averaging plan, the person shall determine the county in which the averaging unit with the highest potential to emit NO_x is located, and send the notice to the address applicable to that county under (h)1 through 4 above.

Amended by R.1995 d.214, effective April 17, 1995 (operative May 23, 1995).
See: 26 N.J.R. 3298(a), 27 N.J.R. 1581(a).

7:27-19.4 Utility boilers

(a) The owner or operator of a utility boiler shall cause it to emit NO_x at a rate no greater than the applicable maximum allowable NO_x emission rate specified in Table 1 below, unless the owner or operator of the utility boiler is complying with one of the following, or with a combination of (a)1 and 3 below:

1. An emissions averaging plan approved by the Department pursuant to N.J.A.C. 7:27-19.6 and 19.14, which includes the combustion source in question as an averaging unit;

2. An alternative maximum allowable emission rate for the boiler, approved by the Department pursuant to N.J.A.C. 7:27-19.13;

3. A seasonal fuel switching plan for the boiler, approved by the Department pursuant to N.J.A.C. 7:27-19.14 and 19.20; or

4. A plan for phased compliance for the boiler, approved by the Department pursuant to N.J.A.C. 7:27-19.14 and N.J.A.C. 7:27-19.21, 19.22 or 19.23.

TABLE 1

Maximum Allowable NO_x Emission Rates for Utility Boilers
(pounds per million BTU)

Fuel/Boiler Type	Firing Method		
	Tangential	Face	Cyclone
Coal—Wet Bottom	1.0	1.0	0.60
Coal—Dry Bottom	0.38	0.45	0.55
Oil and/or Gas	0.20	0.28	0.43
Gas Only	0.20	0.20	0.43

(b) The owner or operator of any utility boiler subject to this subchapter shall install on the boiler a continuous emissions monitoring system satisfying the requirements of N.J.A.C. 7:27-19.18.

Amended by R.1995 d.214, effective April 17, 1995 (operative May 23, 1995).
See: 26 N.J.R. 3298(a), 27 N.J.R. 1581(a).

7:27-19.5 Stationary gas turbines

(a) No stationary simple cycle gas turbine which has a maximum gross heat input rate of at least 30 million BTUs per hour may emit NO_x at a rate greater than the applicable maximum allowable NO_x emission rate specified in Table 2 below, unless the owner or operator is complying with one of the following, or with a combination of (a)1 and 3 below:

1. An emissions averaging plan approved by the Department pursuant to N.J.A.C. 7:27-19.6 and 19.14, which includes the combustion source in question as an averaging unit;

2. An alternative maximum allowable emission rate for the turbine, approved by the Department pursuant to N.J.A.C. 7:27-19.13;

3. A seasonal fuel switching plan for the turbine, approved by the Department pursuant to N.J.A.C. 7:27-19.14 and 19.20; or

4. A plan for phased compliance for the turbine, approved by the Department pursuant to N.J.A.C. 7:27-19.14 and N.J.A.C. 7:27-19.21, 19.22 or 19.23.

TABLE 2

Maximum Allowable NO_x Emission Rate for Simple Cycle Gas Turbines
(Pounds per million BTU)

Fuel Used	Emission Limit
Oil	0.4
Gas	0.2

(b) No combined cycle gas turbine or regenerative cycle gas turbine which has a maximum gross heat input rate of at least 30 million BTUs per hour may emit NO_x at a rate greater than the applicable maximum allowable NO_x emission rate specified in Table 3 below, unless the owner or operator is complying with one of the following, or with a combination of (b)1 and 3 below:

1. An emissions averaging plan approved by the Department pursuant to N.J.A.C. 7:27-19.6 and 19.14, which includes the combustion source in question as an averaging unit;

2. An alternative maximum allowable emission rate for the turbine, approved by the Department pursuant to N.J.A.C. 7:27-19.13;

3. A seasonal fuel switching plan for the turbine, approved by the Department pursuant to N.J.A.C. 7:27-19.14 and 19.20; or

4. A plan for phased compliance for the turbine, approved by the Department pursuant to N.J.A.C. 7:27-19.14 and N.J.A.C. 7:27-19.21, 19.22 or 19.23.

TABLE 3

Maximum Allowable NO_x Emission Rate for Combined Cycle or Regenerative Cycle Gas Turbines
(Pounds per million BTU)

Fuel Used	Emission Limit
Oil	0.35
Gas	0.15

(c) In lieu of complying with the emission limits set forth in (a) and (b) above, the owner or operator of a stationary gas turbine may elect to comply with the requirements of this subsection. The owner or operator of the turbine shall satisfy all of the requirements listed in (c)1 through 6 below:

1. The owner or operator of the stationary gas turbine shall apply for and obtain the Department's written approval, in accordance with N.J.A.C. 7:27-19.14 and based on the standards in N.J.A.C. 7:27-19.14 and (c)2 and 3 below;

2. The owner or operator shall establish that there is an insufficient supply of water to the turbine suitable for NO_x emission control, due to either of the following circumstances beyond the control of the owner or operator:

i. A legally enforceable limit on the amount of water which the owner or operator's facility may use; or

ii. The need to provide for an alternate supply of water, because the existing supply is insufficiently filtered and de-ionized to be suitable for injection;

3. The owner or operator shall establish that there is no commercially available dry low-NO_x combustor suitable for use in the specific stationary gas turbine;

4. The owner or operator shall maintain the Department's approval in effect;

5. The owner or operator shall comply with all conditions of the Department's approval; and

6. The owner or operator annually shall adjust the combustion process of the turbine in accordance with N.J.A.C. 7:27-19.16, before May 1 of each year.

Amended by R.1995 d.214, effective April 17, 1995 (operative May 23, 1995).
See: 26 N.J.R. 3298(a), 27 N.J.R. 1581(a).

7:27-19.6 Emissions averaging

(a) The Department may authorize an owner or operator to comply with an averaging plan approved by the Department pursuant to this section and N.J.A.C. 7:27-19.14. An owner or operator in compliance with such an approved averaging plan is not required to have each averaging unit comply with any emission limit set forth in this subchapter which would be applicable in the absence of an approved averaging plan.

(b) An owner or operator of two or more source operations or items of equipment may request that the Department authorize an averaging plan for two or more averaging units designated by the owner or operator. The owner or operator seeking authorization for averaging shall submit a written application to the Department in accordance with N.J.A.C. 7:27-19.14(a), (b) and (c). The owner or operator shall include the following information in the application:

1. Information sufficient to identify each averaging unit, including its location, a brief description of the unit (for example, "dry-bottom coal-fired utility boiler" or "oil-fired simple-cycle gas turbine"), its permit number, any other identifying numbers, and any other information necessary to distinguish it from other equipment owned or operated by the applicant;

2. The maximum gross heat input rate of each averaging unit, expressed in BTUs per hour;

3. The type of fuel or fuels combusted in each averaging unit;

4. The maximum allowable NO_x emission rate which the owner or operator proposes to impose upon each averaging unit, expressed in pounds per million BTU;

5. The peak daily heat input rate of each averaging unit or of the designated set, expressed in MMBTU;

6. A demonstration that in operating at the peak daily heat input rate, of all the averaging units together or of the designated set would satisfy the following equation:

$$TPEE \leq TPAE$$

where:

i. TPEE means total peak estimated emissions and is equal to the sum of the peak estimated emissions for each averaging unit or the peak estimated emission of the designated set. The peak estimated emissions for each averaging unit equals the maximum emission rate listed in (b)4 above for that averaging unit, multiplied by the peak daily heat input rate listed in (b)5 above for that averaging unit. The peak estimated emissions of the designated set equals the sum of the maximum emission rates listed in (b)4 above for each averaging unit multiplied by the daily heat input rate to that averaging unit at the time of the peak daily heat input rate to the designated set as listed in (b)5 above; and

ii. TPAE means total peak allowable emissions, and is equal to the sum of the total peak allowable emissions for each averaging unit or the peak allowable emissions of the designated set. The peak allowable emissions for each averaging unit equals the applicable NO_x emission limit set forth in N.J.A.C. 7:27-19.4, 19.5, 19.7, 19.8, 19.9, 19.10 or 19.20 for that averaging unit, multiplied by the peak daily heat input rate listed in (b)5 above for that averaging unit. The TPAE of the designated set means the applicable NO_x emission limit for each averaging unit multiplied by the heat input rate to that averaging unit at the time of the peak daily heat input rate to the designated set. For an averaging unit that is included in a seasonal fuel switching plan under N.J.A.C. 7:27-19.20, the applicable NO_x emission limit from May 1 through September 15 is the limit established under N.J.A.C. 7:27-19.20(d) or 19.20(g)3 as applicable, and the applicable NO_x emission limit from September 16 through April 30 is the limit established under N.J.A.C. 7:27-19.20(g)4;

7. The method to be used to measure the actual NO_x emission rate of each averaging unit;

8. The name and phone number of the individual responsible for the recordkeeping required under (g) below; and

9. Any other information which the Department requests, which is reasonably necessary to enable it to determine whether the averaging units designated by the owner or operator will comply with the requirements of this section.

(c) The Department shall approve an averaging plan only if the following requirements are satisfied:

1. Each averaging unit can satisfy the maximum allowable NO_x emission rate which the owner or operator proposed under (b)4 above for that averaging unit;

2. The request for authorization satisfies all requirements of (b) above; and

3. The owner and operator of the averaging units to be included in the designated set enter into a Federally enforceable agreement with the Department (such as the inclusion of conditions in the applicable permits or operating certificates, or both), requiring any averaging unit for which the NO_x emission rate specified under (b)4 above is less than the applicable maximum allowable NO_x emission rate specified at N.J.A.C. 7:27-19.4, 19.5, 19.7, 19.8, 19.9, 19.10 or 19.20 to continue to emit NO_x at a rate no greater than that specified under (b)4 above.

(d) The owner or operator of the designated set shall operate each unit in the designated set in compliance with the following:

1. The actual NO_x emissions from each averaging unit in the designated set, averaged over the appropriate time period specified in (f) below, shall not exceed the maximum allowable NO_x emission rate specified in (b)4 above for that averaging unit; and

2. The sum of the actual NO_x emissions from all averaging units in the designated set, averaged over the appropriate time period specified in (f) below, shall not exceed the sum of the allowable NO_x emissions for all averaging units in the designated set. The allowable NO_x emissions for each averaging unit is calculated according to the following formula:

$$\text{Allowable } NO_x \text{ emissions} = H \times AL$$

where:

i. H means the actual heat input to the averaging unit during the appropriate time interval specified in (f) below. The heat input is expressed in millions of BTUs, based on the higher heating value of the fuel burned; and

ii. AL means the applicable NO_x emission limit set forth in N.J.A.C. 7:27-19.4, 19.5, 19.7, 19.8, 19.9, 19.10 or 19.20 for that averaging unit, expressed in pounds of NO_x per million BTUs. For an averaging unit that is included in a seasonal fuel switching plan under N.J.A.C. 7:27-19.20, the applicable NO_x emission limit from May 1 through September 15 is the limit established under N.J.A.C. 7:27-19.20(g)3, and the applicable NO_x emission limit from September 16 through April 30 is the limit established under N.J.A.C. 7:27-19.20(g)4.

(e) The owner or operator of the designated set shall calculate the actual NO_x emissions of each averaging unit using emissions data from a continuous emissions monitoring system satisfying the requirements of N.J.A.C. 7:27-19.18. The owner or operator may comply with this requirement using emissions data derived in accordance with a monitoring plan for limited installation of continuous emissions monitoring systems approved by the Department under N.J.A.C. 7:27-19.18(e).

(f) The owner or operator shall demonstrate compliance with this section as follows:

1. The owner or operator shall determine whether the operations of the designated set and of each averaging unit comply with this section for each calendar day during the period beginning May 1 and ending September 15 of each year. The owner or operator shall base the calculations required under (d)1 and 2 above upon the heat input and NO_x emissions for each averaging unit over the entire calendar day. The owner or operator shall perform the calculations and make a record of them within three working days after the date which is the subject of the calculation; and

2. The owner or operator shall determine whether the operations of the designated set and of each averaging unit comply with this section for the 30-day period ending on September 16 of each year, and the 30-day period ending on each subsequent day through April 30 of the following year. The owner or operator shall base the calculations required under (d)1 and 2 above upon the heat input and NO_x emissions for each averaging unit over the entire 30-day period. The owner or operator shall perform the calculations and make a record of them by the 15th day of each month, for all 30-day periods ending in the preceding month.

(g) The owner or operator of a designated set shall maintain the records listed below for five years from the date on which each record was made. The owner or operator shall maintain such records in a permanently bound log book or an electronic method, in a format that enables the Department to readily determine whether the designated set and each averaging unit are in compliance. The owner or operator shall maintain the following records:

1. The unique identifier for each averaging unit included in the designated set as specified in (b)1 above;

2. The time period for which the data is being recorded;

3. The date upon which the data was recorded;

4. The amount, type and higher heating value of the fuel(s) consumed over the subject time period;

5. The amount of NO_x (expressed in pounds or tons) emitted by each averaging unit over the subject time period;

6. Whether the amount exceeds the allowable rate for the averaging unit specified under (b)4 above;

7. The sum of the amounts listed in (g)5 above for all averaging units;

8. The allowable NO_x emissions calculated pursuant to (d)2 above; and

9. Any other information required to be maintained as a condition of approval granted pursuant to (b) above.

(h) The owner or operator of a designated set shall submit quarterly reports to the Department on April 30, July 30, October 30 and January 30 of each year, for the immediately preceding calendar quarter ending March 31, June 30, September 30 and December 31, respectively. The owner or operator shall submit the report to the Department at the address set forth in (1) below. The owner or operator shall include the following information in the quarterly report:

1. The information listed in (g)2 and 3 above;

2. In the report for the quarter ending March 31, the compliance determination required under (f)2 above for each 30-day period ending on a calendar day within the quarter;

3. In the report for the quarter ending June 30:

i. The compliance determination required under (f)2 above for each 30-day period ending on a calendar day from April 1 through May 14, inclusive; and

ii. The compliance determination required under (f)1 above for each calendar day from May 15 through June 30, inclusive;

4. In the report for the quarter ending September 30:

i. The compliance determination required under (f)2 above for each 30 day period ending on a calendar day from September 16 through September 30, inclusive; and

ii. The compliance determination required under (f)1 above for each calendar day from July 1 through September 15; and

5. In the report for the quarter ending December 31, the compliance determination required under (f)2 above for each 30-day period ending on a calendar day within the quarter.

(i) If the emissions from the designated set or from any averaging unit do not comply with (d) above for any time period described in (f) above, the owner or operator of the designated set shall deliver (as opposed to send) written notice of the non-compliance to the Department within two working days after the date on which the owner or operator was required to calculate compliance under (f) above. The owner or operator shall provide the notice in writing to the Regional Enforcement Officer, at the address specified at N.J.A.C. 7:27-19.3(h) for the county in which

the averaging unit with the highest NO_x emission rate is located. The owner or operator shall include the following information in the notification:

1. The name of the owner or operator;

2. The name and telephone number of the person specified in (b)7 above;

3. All information required to be recorded under (h) above;

4. A statement of the reason(s) for the non-compliance, if known; and

5. Certification of the notification, in accordance with N.J.A.C. 7:27-8.24.

(j) An owner or operator of an averaging unit which cannot be operated due to sudden and reasonably unforeseeable circumstances beyond the control of the owner or operator, and for which the NO_x emission rate specified under (b)4 above is less than the applicable maximum allowable NO_x emission rate under N.J.A.C. 7:27-19.4, 19.5, 19.7, 19.8, or 19.10 shall take the following actions:

1. Within two working days after the averaging unit ceased operating, deliver (as opposed to send) written preliminary notice to the Department. This preliminary notice shall be followed up within 30 calendar days of the occurrence of the incident certifying the information in accordance with N.J.A.C. 7:27-8.24. In the written notice, the owner or operator shall identify the unit which is or was not operating, and state why it is or was not operating;

2. If circumstances beyond the control of the owner or operator make it impracticable either to repair the averaging unit within 15 calendar days after it ceased operating, or to comply with the averaging plan without operating the unit (for example, through reducing the operations of another unit and purchasing electric power from another source), include in the notice described in (j)1 above an explanation of those circumstances and an estimate of the time required to repair the averaging unit; and

3. In determining whether the designated set is in compliance with (d)2 above, assume that the NO_x emissions and heat input for the non-operational averaging unit for each of the first 15 days of non-operation (or such longer period, not to exceed six months, as the Department determines is necessary to repair the averaging unit based on the information submitted under (j)2 above) are equal to the actual emissions and heat input for that unit on the most recent comparable demand day. For each day after the end of the period described above, assume that the NO_x emissions and heat input for the non-operational averaging unit are zero.

Amended by R.1995 d.214, effective April 17, 1995 (operative May 23, 1995).
See: 26 N.J.R. 3298(a), 27 N.J.R. 1581(a).

7:27-19.7 Non-utility boilers and other indirect heat exchangers

(a) Beginning in calendar year 1995, the owner or operator of a non-utility boiler or other indirect heat exchanger with a maximum gross heat input rate of at least 20 million but less than 50 million BTUs per hour shall:

1. Annually adjust the combustion process in accordance with N.J.A.C. 7:27-19.16, calendar year; or

2. Cause the boiler or other indirect heat exchanger to emit NO_x at a rate no greater than the applicable maximum allowable NO_x emission rate specified in Table 4 below, and establish compliance with this requirement by continuous emissions monitoring pursuant to N.J.A.C. 7:27-19.15(a)1.

(b) Beginning on May 31, 1995, the owner or operator of a non-utility boiler or other indirect heat exchanger with a maximum gross heat input rate of at least 50 million but less than 100 million BTUs per hour shall cause the boiler or other indirect heat exchanger to emit NO_x at a rate no greater than the applicable maximum allowable NO_x emission rate specified in Table 4 below, and comply with the applicable requirements of (d) below.

TABLE 4

Maximum Allowable NO_x Emission Rates for
Non-utility Boilers and other Indirect Heat Exchangers
Subject to N.J.A.C. 7:27-19.7(b)
(pounds per million BTU)

	Firing Method		
Fuel/Boiler Type	Tangential	Face	Cyclone
Coal—Wet Bottom	1.0	1.0	0.55
Coal—Dry Bottom	0.38	0.43	0.55
#2 Fuel Oil	0.12	0.12	0.12
Other Liquid Fuels	0.3	0.3	0.3
Refinery fuel gas	0.20	0.20	N/A
Natural Gas	0.1	0.1	0.1

(c) Beginning on May 31, 1995, the owner or operator of a non-utility boiler or other indirect heat exchanger with a maximum gross heat input rate of at least 100 million BTUs per hour shall cause the boiler or other indirect heat exchanger to emit NO_x at a rate no greater than the applicable

maximum allowable NO_x emission rate specified in Table 5 below, and comply with the applicable requirements of (d) below.

TABLE 5

Maximum Allowable NO_x Emission Rates for Non-utility Boilers and other Indirect Heat Exchangers Subject to N.J.A.C. 7:26-19.7(c) (pounds per million BTU)

Fuel/Boiler Type	Firing Method Tangential	Face	Cyclone
Coal—Wet Bottom	1.0	1.0	0.60
Coal—Dry Bottom	0.38	0.45	0.55
Oil and/or Gas	0.20	0.28	0.43
Refinery fuel gas	0.20	0.20	N/A
Gas Only	0.20	0.20	0.43

(d) In addition to complying with (c) above, the owner or operator of any non-utility boiler or other indirect heat exchanger with a maximum gross heat input rate of at least 250 million BTUs per hour shall install a continuous emissions monitoring system in accordance with N.J.A.C. 7:27-19.18. In addition to complying with (b) or (c) above, as applicable, the owner or operator of a non-utility boiler or other indirect heat exchanger with a maximum gross heat input rate of at least 50 million BTUs per hour but less than 250 million BTUs per hour shall either:

1. Annually adjust the combustion process in accordance with N.J.A.C. 7:27-19.16, each calendar year; or

2. Establish compliance with the applicable maximum allowable emission rate by continuous emissions monitoring pursuant to N.J.A.C. 7:27-19.15(a)1.

(e) In lieu of complying with a NO_x emission limit under (b) or (c) above, the owner or operator of a non-utility boiler or other indirect heat exchanger may comply with one of the following, or with a combination of (e)1 and 3 below:

1. An emissions averaging plan approved by the Department pursuant to N.J.A.C. 7:27-19.6 and 19.14, which includes the combustion source in question as an averaging unit;

2. An alternative maximum allowable emission rate for the unit, approved by the Department pursuant to N.J.A.C. 7:27-19.13;

3. A seasonal fuel switching plan for the unit, approved by the Department pursuant to N.J.A.C. 7:27-19.14 and 19.20; or

4. A plan for phased compliance for the unit, approved by the Department pursuant to N.J.A.C. 7:27-19.14 and N.J.A.C. 7:27-19.21, 19.22 or 19.23.

Amended by R.1995 d.214, effective April 17, 1995 (operative May 23, 1995).
See: 26 N.J.R. 3298(a), 27 N.J.R. 1581(a).

7:27-19.8 Stationary internal combustion engines

(a) The owner or operator of a rich-burn stationary internal combustion engine capable of producing an output of more than 500 horsepower, fueled by gaseous fuel, shall cause it to emit no more than 1.5 grams of NO_x per horsepower hour.

(b) The owner or operator of a lean-burn stationary internal combustion engine capable of producing an output of more than 500 horsepower, fueled by gaseous fuel, shall cause it to emit no more than 2.5 grams of NO_x per horsepower hour.

(c) The owner or operator of any lean-burn stationary internal combustion engine capable of producing an output of more than 500 horsepower, fueled by liquid fuel, shall cause it to emit no more than 8.0 grams of NO_x per horsepower hour.

(d) In lieu of complying with a NO_x emission limit under (a), (b) or (c) above, the owner or operator of a stationary internal combustion engine may comply with one of the following, or with a combination of (d)1 and 3 below:

1. An emissions averaging plan approved by the Department pursuant to N.J.A.C. 7:27-19.6 and 19.14, which includes the combustion source in question as an averaging unit;

2. An alternative maximum allowable emission rate for the engine, approved by the Department pursuant to N.J.A.C. 7:27-19.13;

3. A seasonal fuel switching plan for the engine, approved by the Department pursuant to N.J.A.C. 7:27-19.14 and 19.20; or

4. A plan for phased compliance for the engine, approved by the Department pursuant to N.J.A.C. 7:27-19.14 and N.J.A.C. 7:27-19.21, 19.22 or 19.23.

Amended by R.1995 d.214, effective April 17, 1995 (operative May 23, 1995).
See: 26 N.J.R. 3298(a), 27 N.J.R. 1581(a).

7:27-19.9 Asphalt plants

(a) The owner or operator of a batch type or drum mix asphalt plant which has the potential to emit at least 25 tons per year of NO_x shall cause it to emit NO_x at a rate no greater than 200 ppmvd at seven percent O_2.

(b) At least annually, the owner or operator of an asphalt plant subject to (a) above shall adjust the combustion process of the aggregate dryer in accordance with N.J.A.C. 7:27-19.16.

(c) In lieu of complying with a NO_x emission limit under (a) above, the owner or operator of an asphalt plant may comply with one of the following, or with a combination of (c)1 and 3 below:

1. An emissions averaging plan approved by the Department pursuant to N.J.A.C. 7:27-19.6 and 19.14, which includes the combustion source in question as an averaging unit;

2. An alternative maximum allowable emission rate for the unit, approved by the Department pursuant to N.J.A.C. 7:27-19.13;

3. A seasonal fuel switching plan for the unit, approved by the Department pursuant to N.J.A.C. 7:27-19.14 and 19.20; or

4. A plan for phased compliance for the unit, approved by the Department pursuant to N.J.A.C. 7:27-19.14 and N.J.A.C. 7:27-19.21, 19.22 or 19.23.

Amended by R.1995 d.214, effective April 17, 1995 (operative May 23, 1995).
See: 26 N.J.R. 3298(a), 27 N.J.R. 1581(a).

7:27-19.10 Glass manufacturing furnaces

(a) The owner or operator of any commercial container glass manufacturing furnace listed in N.J.A.C. 7:27-19.2(b)6 shall cause the furnace to emit no more than 5.5 pounds of NO_x per ton of glass removed from the furnace.

(b) The owner or operator of any specialty container glass manufacturing furnace listed in N.J.A.C. 7:27-19.2(b)7 shall cause the furnace to emit no more than 11 pounds of NO_x per ton of glass removed from the furnace.

(c) The owner or operator of a borosilicate recipe glass manufacturing furnace listed in N.J.A.C. 7:27-19.2(b)8 shall:

1. By January 1, 1994 determine the baseline NO_x emission rate from the furnace by either:

i. Conducting source emissions testing in accordance with N.J.A.C. 7:27-19.17; or

ii. Using the results of source emissions testing conducted at any time after November 15, 1990, provided that the procedures used for the source emission testing meet the requirements of N.J.A.C. 7:27-19.17;

2. By July 1, 1994, submit one of the following to the Department:

i. A written plan detailing how the NO_x emission rate from the furnace will be reduced by 30 percent from the baseline emission rate measured in (c)1 above; or

ii. A demonstration that the NO_x emissions from the furnace, as measured by the source emissions testing performed under (c)1 above, are at least 30 percent less than the uncontrolled NO_x emissions from the furnace as of a date no earlier than November 15, 1990;

3. Before the date specified in (d) below, implement the plan detailed in (c)2i above (unless the owner or operator has submitted the demonstration described in (c)2ii above); and

4. Beginning on the date specified in (d) below, cause the furnace to emit NO_x at a rate no greater than the reduced rate described in (c)2i above, or to continue to emit NO_x at a rate no greater than the rate demonstrated under (c)2ii above.

(d) A glass manufacturing furnace subject to this subchapter shall comply with the requirements of (a), (b), (c)3 and (c)4 above beginning on the earlier of the following:

1. The first date after January 23, 1994 on which rebricking of the furnace is completed; or

2. May 1, 1997.

(e) Beginning in calendar year 1994, the owner or operator of a glass manufacturing furnace subject to this subchapter shall adjust the combustion process of the furnace in accordance with N.J.A.C. 7:27-19.16 before May 1 of each calendar year.

(f) In lieu of complying with a NO_x emission limit under (a), (b) or (c) above, the owner or operator of a glass manufacturing furnace may comply with one of the following, or with a combination of (f)1 and 3 below:

1. An emissions averaging plan approved by the Department pursuant to N.J.A.C. 7:27-19.6 and 19.14, which includes the combustion source in question as an averaging unit;

2. An alternative maximum allowable emission rate for the furnace, approved by the Department pursuant to N.J.A.C. 7:27-19.13;

3. A seasonal fuel switching plan for the furnace, approved by the Department pursuant to N.J.A.C. 7:27-19.14 and 19.20; or

4. A plan for phased compliance for the furnace, approved by the Department pursuant to N.J.A.C. 7:27-19.14 and N.J.A.C. 7:27-19.21, 19.22 or 19.23.

Amended by R.1995 d.214, effective April 17, 1995 (operative May 23, 1995).
See: 26 N.J.R. 3298(a), 27 N.J.R. 1581(a).

7:27-19.11 and 19.12 (Reserved)

7:27-19.13 Facility-specific NO_x emissions limits

(a) This section establishes procedures and standards for the establishment of facility-specific NO_x emissions limits in the following circumstances:

1. If a major NO_x facility contains any source operation or item of equipment of a category not listed in N.J.A.C. 7:27-19.2(b) (that is, any source operation or item of equipment other than a utility boiler, a non-utility boiler, a stationary gas turbine, a stationary internal combustion engine, a rotary dryer located at an asphalt plant, or a glass manufacturing furnace) which has the potential to emit more than 10 tons of NO_x per year, except as provided in (p) below; or

2. If the owner or operator of a source operation or item of equipment listed in N.J.A.C. 7:27-19.2(b) seeks approval of an alternative maximum allowable emission rate, which would apply to the equipment or source operation in lieu of the emission limit which would otherwise apply under this subchapter.

(b) The owner or operator of a major NO_x facility described in (a)1 above shall obtain the Department's written approval of a facility-specific NO_x control plan in accordance with this section. For any facility, equipment or source operation which is in operation prior to January 23, 1994, the owner or operator shall submit to the Department in writing a proposed NO_x control plan for the facility by April 23, 1994 or by a later date approved by the Department pursuant to N.J.A.C. 7:27-19.3(e). In the proposed NO_x control plan, the owner or operator shall include:

1. A list of each source operation or item of equipment at the facility which has the potential to emit more than 10 tons of NO_x per year and is not listed in N.J.A.C. 7:27-19.2(b). In the list, the owner or operator shall briefly describe the source operation or item of equipment, and list its permit number and any other identifying numbers; and

2. The information listed in (d) below.

(c) The owner or operator of a source operation or item of equipment listed in N.J.A.C. 7:27-19.2(b) may request approval of an alternative maximum allowable emission rate in accordance with this section. In the request, the owner or operator shall include:

1. A brief description of the equipment or source operation which is the subject of the request, and its permit number and any other identifying numbers;

2. A demonstration that the source operation or item of equipment is not reasonably able to comply with this subchapter through any alternative means of compliance established under this subchapter (for example, through seasonal combustion of natural gas pursuant to N.J.A.C. 7:27-19.4(b), or through compliance with an averaging plan under N.J.A.C. 7:27-19.6); and

3. The information listed in (d) below.

(d) In addition to the information required under (b) or (c) above, as applicable, the owner or operator shall include the following information in a proposed NO_x control plan or request for an alternative maximum allowable emission rate:

1. For each source operation or item of equipment listed in (b)1 above or (c)1 above, as applicable, a list of all NO_x control technologies available for use with the equipment or source operation;

2. An analysis of the technological feasibility of installing and operating each control technology identified in (d)1 above;

3. For each control technology which is technologically feasible to install and operate, an estimate of the cost of installation and operation;

4. An estimate of the remaining useful life of each source operation or item of equipment listed in (b)1 above or (c)1 above, as applicable;

5. An estimate of the reduction in NO_x emissions attainable through the use of each control technology which is technologically feasible to install and operate;

6. For each source operation or item of equipment listed in (b)1 above or (c)1 above, as applicable, the NO_x control technology or technologies which the owner or operator proposes to employ;

7. For each source operation or item of equipment listed in (b)1 above or (c)1 above, as applicable, a proposed NO_x emission limit;

8. Any other information which the Department requests which is reasonably necessary to enable it to determine whether the application satisfies the requirements of (g) below; and

9. A certification signed by the owner or operator, satisfying the requirements of N.J.A.C. 7:27-8.24.

(e) Within 30 days after receiving a proposed NO_x control plan or request for an alternative maximum allowable emission rate, the Department shall notify the owner or operator in writing whether the submission includes all of the information required under (d) above and under (b) or (c) above, as applicable. If the proposed NO_x control plan or request for an alternative maximum allowable emission rate is incomplete, the following shall apply:

1. The Department shall include in the notice a list of the deficiencies, a statement of the additional information required to make the proposed plan or request complete, and a time by which the owner or operator must submit a complete proposed plan or request;

2. The Department may refrain from reviewing the substance of the proposed plan or request (or any part thereof) until it is complete;

3. The owner or operator shall submit a complete proposed plan or request within the time stated in the Department's notification;

4. If the owner or operator fails to submit a complete proposed plan within the time stated in the Department's notification, the failure is a violation of this subchapter; and

5. If the owner or operator fails to submit a complete request for an alternative maximum allowable emission rate within the time stated in the Department's notification, the Department may deny the request.

(f) The Department shall seek comments from the general public before making any final decision to approve or disapprove a proposed NO_x control plan or request for an alternative maximum allowable emission rate. The Department shall publish notice of opportunity for public comment in a newspaper of general circulation in the area in which the major NO_x facility is located.

(g) Within six months after receiving a complete proposed NO_x control plan or request for an alternative maximum allowable emission rate, the Department shall approve, approve and modify, or disapprove the proposed plan or request and notify the owner or operator of the decision in writing. The Department shall approve the proposed plan or request only if it satisfies the following requirements:

1. The proposed plan or request contains all of the information required under (d) above and under (b) or (c) above, as applicable;

2. The proposed plan or request considers all control technologies available for the control of NO_x emissions from the type of equipment or source operation in question;

3. For any control technologies described in (g)2 above which the owner or operator does not propose to use on the equipment or source operation, the proposed plan or request demonstrates that the control technology:

i. Would be ineffective in controlling NO_x emissions from the equipment or source operation;

ii. Is unsuitable for use in the equipment or source operation, or duplicative of control technology which the plan proposes to use;

iii. Would carry costs disproportionate to the improvement in the reduction of the NO_x emissions rate which the control technology is likely to achieve, or disproportionately large in comparison to the total reduction in NO_x emissions which the control technology is likely to achieve over its useful life; or

iv. Would carry costs disproportionate to the costs incurred for the control of NO_x emissions from the same type of equipment or source operations used by other persons in the owner or operator's industry;

4. The emission limit proposed for each source operation and item of equipment is the lowest rate which can practicably be achieved at a cost within the limits described in (g)3iii and iv above;

5. The cost of achieving an additional emission reduction beyond each proposed limit would be disproportionate to the size and environmental impact of that additional emission reduction; and

6. Any significant net emission of any criteria pollutant (as determined pursuant to N.J.A.C. 7:27-19.17 or 19.18, as applicable) do not cause or significantly contribute to a violation of a National Ambient Air Quality Standard, an exceedance of a Federal Prevention of Significant Deterioration increment if applicable, or any violation of the Clean Air Act, 42 U.S.C. 7401 et seq. A significant net emission increase of any criteria pollutant, and the determination of when such an increase causes or significantly contributes to an exceedance of a National Ambient Air Quality Standard, shall be determined pursuant to N.J.A.C. 7:27-18.

(h) Any alternate emissions limit pursuant to N.J.A.C. 7:27-19.13(c) or NO_x Control Plan pursuant to 7:27-19.13(b) approved by the Department will be submitted to EPA for approval as a revision to the State Implementation Plan (SIP) for ozone.

(i) As a condition of an approval issued under this section, the Department may impose requirements upon the operation of any of the equipment or source operations at the subject facility listed pursuant to (b)1 or (c)1 above necessary to minimize any adverse impact upon human health, welfare and the environment.

(j) Before altering any equipment or source operation which is included in an approved facility-specific NO_x control plan, the owner or operator shall:

1. If the alteration would change any of the information required in (b) or (d) above, apply for and obtain pursuant to the procedures set forth at (b) and at (d) through (j) above the Department's approval of an amended facility-specific NO_x control plan, reflecting the proposed alteration. If the owner or operator does not obtain the Department's approval before commencing operation of the altered equipment or source operation, the Department may (in addition to assessing penalties under N.J.A.C. 7:27A-3.10) modify the facility-specific NO_x control plan to reflect the alteration, in a manner satisfying the criteria set forth in (g) above; and

2. Apply for and obtain such permits and certificates, or amendments thereto, as are required under N.J.A.C. 7:27-8 and any other applicable law or regulation.

(k) An approval of an alternative maximum allowable emission rate is void upon the alteration of equipment or source operation which is subject to the rate unless:

1. The Department approves continued application of the existing alternative maximum allowable emission rate if the proposed alteration does not materially affect the basis of the Department's original approval; or

2. The owner or operator, before altering any equipment or source operation which is subject to an alternative maximum allowable emission rate, applies for and obtains the Department's approval of:

i. A revised alternative maximum allowable emission rate pursuant to this section, reflecting the proposed alteration; and

ii. Such permits and certificates as are required under N.J.A.C. 7:27-8 and any other applicable law or regulation.

(l) The Department will revoke an approval of a NO_x control plan by written notice to the holder of the approval if EPA denies approval of the proposed NO_x plan as a revision to the State Implementation Plan. The Department may revoke an approval of a NO_x control plan by written notice to the holder of the approval, if:

1. Any material condition of the approval is violated;

2. The Department determines that its decision to grant the approval was materially affected by a misstatement or omission of fact in the proposed plan or any supporting documentation; or

3. The Department determines that continued use of the subject equipment or source operation pursuant to the approval poses a potential threat to the public health, welfare or the environment.

(m) A person may request an adjudicatory hearing in accordance with the procedure at N.J.A.C. 7:27-8.12, if:

1. The Department denied the person's application for approval of a plan or alternative rate under this section;

2. The person seeks to contest one or more conditions of the Department's approval imposed under (i) above; or

3. The Department has revoked the person's approval pursuant to (l)1, 2 or 4 above.

(n) The owner or operator of a facility described in (a)1 above shall implement the NO_x control plan (including, without limitation, complying with the emission limits set forth in the plan) approved by the Department by May 31, 1995, and maintain compliance with the plan and all conditions of the Department's approval thereafter. The owner or operator of a source operation or item of equipment for which the Department has approved an alternative maximum allowable emission rate shall cause it to emit NO_x at a rate no greater than the approved alternative rate.

(o) The owner or operator submitting a proposed NO_x control plan or request for an alternative maximum allowable emission rate shall send it to the Department at the following address:

Chief, Bureau of Air Quality Engineering
Department of Environmental Protection
401 East State Street
CN 027
Trenton, New Jersey 08625-0027

(p) A major NO_x facility satisfies the requirements of this section if its only equipment or source operations with the potential to emit 10 tons or more of NO_x per year are non-utility boilers or thermal oxidizers. The owner or operator of such a facility is not required to submit a facility-specific NO_x control plan for the facility.

Amended by R.1995 d.214, effective April 17, 1995 (operative May 23, 1995).
See: 26 N.J.R. 3298(a), 27 N.J.R. 1581(a).

7:27-19.14 Procedures for obtaining approvals under this subchapter

(a) This section establishes the procedure for obtaining any of the following from the Department:

1. An exemption from this subchapter, pursuant to N.J.A.C. 7:27-19.2(f);

2. Approval of a fuel switching plan under N.J.A.C. 7:27-19.20, and authorization to operate under the plan;

3. Approval of a plan for phased compliance under N.J.A.C. 7:27-19.21, 19.22 or 19.23, and authorization to operate under the plan;

4. Approval of compliance with the requirements of N.J.A.C. 7:27-19.5(c) for a stationary gas turbine;

5. Approval of an emissions averaging plan under N.J.A.C. 7:27-19.6, and authorization to operate under the plan; or

6. Approval of an alternative monitoring plan pursuant to N.J.A.C. 7:27-19.18(b).

(b) The person seeking an approval listed in (a) above shall submit a written application to the Department at the following address:

Chief, Bureau of Air Quality Engineering
Air Quality Regulation
Department of Environmental Protection
401 East State Street
CN 027
Trenton, NJ 08625-0027

(c) The person seeking the approval under (a) above shall include the following information in the application submitted under (b) above:

1. Any information required under N.J.A.C. 7:27-19.2(f), 19.5(c), 19.6(b), 19.18(c), 19.20 or 19.21, as applicable;

2. The name, address and telephone number of the owner and the operator of the equipment or source operation which is the subject of the application;

3. The street address of the facility at which the subject equipment or source operation is located;

4. The type of equipment or source operation which is the subject of the application, and its make, model and serial number;

5. For requests submitted under N.J.A.C. 7:27-19.5(c), a proposed maximum allowable emission rate for the subject stationary gas turbine;

6. A certification of the application, satisfying the requirements of N.J.A.C. 7:27-8.24; and

7. Any other information which the Department requests which is reasonably necessary to enable it to determine whether the application satisfies the requirements of (e) below.

(d) Within 30 days after receiving an application, the Department shall notify the applicant in writing whether the application includes all of the information required under (c) above. If the application is incomplete:

1. The Department shall include in the notice a list of the deficiencies, a statement of the additional information required to make the application complete, and the time by which the applicant must submit a complete application;

2. The Department may refrain from reviewing the substance of the application (or any part thereof) until it is complete;

3. The applicant shall submit a complete application within the time stated in the Department's notification; and

4. The Department may reject the application if the applicant fails to submit a complete application within the time stated in the Department's notification.

(e) Within six months after receiving a complete application, the Department shall grant its approval under this section only if:

1. The applicant satisfies all eligibility requirements set forth in N.J.A.C. 7:27-19.5(c), 19.6(c), 19.20, or 19.21 as applicable; and

2. Any significant net emission of any criteria pollutant (as determined pursuant to N.J.A.C. 7:27-19.17 or 19.18, as applicable) do not cause or significantly contribute to a violation of a National Ambient Air Quality Standard as determined pursuant to N.J.A.C. 7:27-18, an exceedance of a Federal Prevention of Significant Deterioration increment if applicable, or any violation of the Clean Air Act, 42 U.S.C. 7401 et seq. A significant net emission increase of any criteria pollutant, and the determination of when such an increase causes or significantly contributes

to an exceedance of a National Ambient Air Quality Standard, shall be determined pursuant to N.J.A.C. 7:27-18.

(f) As a condition of an approval issued under this section (other than an approval of an exemption pursuant to N.J.A.C. 7:27-19.2(f)), the Department may impose requirements upon the operation of the subject equipment or source operation necessary to minimize any adverse impact upon human health, welfare and the environment.

(g) An approval issued under this section is void upon the alteration of equipment or source operation which is the subject of the approval unless:

1. The owner or operator applies for and obtains the Department's approval of a revised approval pursuant to this section, reflecting the proposed alteration; and

2. Before altering the equipment or source operation subject to the approval, the owner or operator applies for and obtains such permits and certificates as are required under N.J.A.C. 7:27-8 and any other applicable law or regulation.

(h) The Department may revoke an approval issued under this section, by written notice to the holder of the approval, if:

1. Any material condition of the approval is violated;

2. The Department determines that its decision to grant the approval was materially affected by a misstatement or omission of fact in the request for the approval or any supporting documentation;

3. The Department determines that as a result of a change in circumstances since the date of the approval, the subject equipment or source operations are able to comply with the applicable section of this subchapter. In revoking an approval pursuant to this paragraph, the Department shall specify an effective date for the revocation which provides the owner or operator with a reasonable amount of time to comply with the applicable section of this subchapter; or

4. The Department determines that continued use of the subject equipment or source operation pursuant to the approval poses a potential threat to public health, welfare or the environment.

(i) A person may request an adjudicatory hearing in accordance with the procedure at N.J.A.C. 7:27-8.12, if:

1. The Department has denied the person's application for an approval under this section;

2. The person seeks to contest conditions of the approval imposed under (f) above; or

3. The Department has revoked the person's approval pursuant to (h) above.

(j) If an item of equipment or a source operation has exceeded the maximum allowable emission rate applicable under this subchapter without an approval pursuant to this section, it shall not be a defense to an enforcement action that an application for an approval is pending.

Amended by R.1995 d.214, effective April 17, 1995 (operative May 23, 1995).
See: 26 N.J.R. 3298(a), 27 N.J.R. 1581(a).

7:27-19.15 Procedures and deadlines for demonstrating compliance

(a) The owner or operator of equipment or a source operation subject to an emission limit under this subchapter shall demonstrate compliance with the emission limit as follows:

1. If a continuous emissions monitoring system has been installed on the equipment or source operation, or if any other provision of this subchapter requires emissions from the equipment or source operation to be monitored by a continuous emissions monitoring system under N.J.A.C. 7:27-19.18, the owner or operator shall calculate the average NO_x emission rate using the data from such a system for the NO_x concentration in the flue gas and either the flue gas flow rate or the fuel flow rate. To calculate the emission rate using the NO_x concentration and fuel flow rate, the owner or operator shall use the conversion procedure set forth in the Acid Rain regulations at 40 CFR part 75, Appendix F, or an alternative procedure that the Department determines will yield the same result. Compliance with the limit shall be based upon the average of emissions:

i. Between May 1 and September 15, over each calendar day; and

ii. From September 16 through April 30 of the following year, over the 30-day period ending on each such day; or

2. If no continuous emissions monitoring system has been or is required to be installed on the equipment or source operation, compliance with the limit shall be based upon the average of three one-hour tests, each performed over a consecutive 60-minute period specified by the Department, and performed in compliance with N.J.A.C. 7:27-19.17.

(b) For any equipment or source operation subject to this subchapter which was in operation before January 1, 1995, the owner or operator shall demonstrate compliance with this subchapter in accordance with (a)1 or 2 above by May 31, 1996, and thereafter at the frequency set forth in the permit for such equipment or source operation.

(c) For any equipment or source operation subject to this subchapter which commences operations or is altered after January 1, 1995, the owner or operator shall demonstrate compliance with this subchapter in ac-

cordance with (a)1 or 2 above within 180 days from the date on which the source commences operation, and thereafter at the frequency set forth in the permit for such equipment or source operation.

(d) An exceedance of any applicable NO_x emission limit set forth in this subchapter, determined through testing or monitoring performed pursuant to (a), (b), or (c) above or otherwise, is a violation of this subchapter.

Amended by R.1995 d.214, effective April 17, 1995 (operative May 23, 1995).
See: 26 N.J.R. 3298(a), 27 N.J.R. 1581(a).

7:27-19.16 Adjusting combustion processes

(a) When any provision of this subchapter requires the adjustment of a combustion process for any equipment or source operation, the owner or operator of the equipment or source operation shall:

1. Inspect the burner, and clean or replace any components of the burner as necessary to minimize total emissions NO_x and CO;

2. Inspect the flame pattern and make any adjustments to the burner necessary to optimize the flame pattern; and

3. Inspect the system controlling the air-to-fuel ratio, and ensure that it is correctly calibrated and functioning properly. For turbines with fixed air-to-fuel nozzles that cannot be adjusted, the owner or operator shall instead inspect and clean the fuel nozzles annually, recalibrating and repairing as necessary.

(b) An exceedance of an emission limit which occurs during an adjustment of the combustion process under (a)2 or 3 above, as a result of the adjustment, is not a violation of this chapter. Before the combustion adjustment begins, and after it has been completed, the maximum emission rate of any contaminant shall not exceed the maximum allowable emission rate applicable under this chapter or under an applicable certificate issued pursuant to N.J.A.C. 7:27-8.

(c) The owner or operator of the adjusted equipment or source operation shall record each adjustment conducted under (a) above in a permanently bound log book or other format approved in writing by the Department, containing the following information for each adjustment:

1. The date of the adjustment and the times at which it began and ended;

2. The name, title and affiliation of the person who made the adjustment;

3. The NO_x concentration in the effluent stream, in either ppmv or ppmvd, after each adjustment was made;

4. The CO concentration in the effluent stream, in either ppmv or ppmvd, after each adjustment was made;

5. The concentration of O_2 at which the CO and NO_x concentrations pursuant to (c)3 and 4 were measured; and

6. Any other information which the Department or the EPA has required as a condition of approval of any permit or certificate issued for the equipment or source operation.

7:27-19.17 Source emissions testing

(a) Upon request by the Department or EPA, the owner or operator of any equipment or source operation subject to this subchapter shall:

1. Conduct tests to determine the emissions from such equipment or source operation to determine the nature and quantity of VOC, NO_x, or CO being emitted into the outdoor atmosphere;

2. Provide information concerning the location, rate, duration, concentration, and properties of the emissions of NO_x, CO or VOC from such equipment or source operations, and such other information as may be reasonably necessary to assess air emissions;

3. Provide information concerning the rate at which the equipment or source operation is combusting fuel during tests conducted under (a)1 above, and the maximum gross heat input value of the equipment or source operation; and

4. Provide the log prepared under (e) below, or any part thereof requested by EPA or the Department.

(b) Upon the Department's request, the owner or operator of any equipment or source operation subject to this subchapter shall provide the Department with temporary or permanent sampling facilities satisfying the requirements of N.J.A.C. 7:27B-1.4. The owner or operator shall construct such facilities in accordance with all applicable laws, ordinances and regulations, including those which regulate construction practices.

(c) During any testing conducted pursuant to this section, the equipment or source operation, and all components connected, attached to, or serving the equipment, shall be used and operated under normal routine operating conditions, under maximum capacity operating conditions, or under such other conditions within the capacity of the equipment as the Department or EPA requests.

(d) A person conducting testing pursuant to this section shall use the test method which the Department specifies, based upon the circumstances specific to the facility or to the equipment or source operation being tested. The Department shall specify one of the following methods:

1. The methods set forth at 40 CFR 60, Appendix A, method 7E; or

2. Any other method which EPA and the Department have approved in advance in writing. If EPA approves a method, and the Department determines that the method yields results at least as consistent as the appropriate method listed under (d)1 above, and which has no greater tendency to understate emissions, the Department shall approve the method.

(e) The owner or operator of the tested equipment or source operation shall record any test data collected under this section, and maintain it for at least five years after the date on which the testing was conducted.

7:27-19.18 Continuous emissions monitoring

(a) Any person required to install a continuous emissions monitoring system under this subchapter shall:

1. Obtain a system approved in advance by the Department. The Department shall approve a system if its design and specifications satisfy the requirements established by EPA at 40 CFR Part 60, Appendix B, Performance Specification Tests No. 2, and 40 CFR Part 60, Appendix F, Quality Assurance Requirements;

2. Install the system in compliance with the EPA regulations listed in (a)1 above, and in compliance with the manufacturer's specifications;

3. Conduct performance tests of the system in accordance with the EPA regulations listed in (a)1 above, and obtain confirmation from the Department that the system satisfies the performance requirements of those regulations;

4. Install and operate the system in compliance with the manufacturer's specifications; and

5. Continuously monitor and record NO_x emissions from the equipment or source operation subject to the monitoring requirement.

(b) A person required under this subchapter to install continuous emissions monitoring systems on equipment or source operations of a given type at a facility may satisfy this requirement without installing a continuous emissions monitor on every unit of such equipment or source operations at the facility, by using an alternative monitoring methodology set forth in an alternative monitoring plan, approved in advance in writing by the Department, which is as reliable for demonstrating compliance for that unit as a continuous emissions monitoring system which satisfies the criteria in (a) above would be.

(c) A person seeking approval of an alternative monitoring plan pursuant to (b) above shall submit a written application to the Department. The applicant shall include in the application all of the information re-

quired under N.J.A.C. 7:27-19.14(c)2, 3, 4 and 6. The applicant shall include in the application for the alternative monitoring plan the following information for each item of equipment or source operation for which a continuous emissions monitor is required under this subchapter and to which the alternative monitoring plan would apply:

1. The make and model of each unit of equipment or source operation;

2. The facility at which the equipment or source operation is used;

3. A description of the conditions under which the equipment or source operation is used;

4. The results of all source emissions testing conducted within the five years preceding the application for each unit of equipment or source operation listed in (c)1 above;

5. A statement that the applicant proposes to install or not install a continuous emissions monitor which satisfies the criteria set forth in (a) above;

6. A demonstration that the monitoring methodology set forth in the alternative monitoring plan is as reliable for demonstrating compliance as a continuous emissions monitor which satisfies the criteria listed in (a)1 above; and

7. Any other information which the Department requests which is reasonably necessary to enable it to determine whether the application satisfies the requirements of (e) below.

(d) Within 30 days after receiving an application, the Department shall notify the applicant in writing whether the application includes all of the information required under (c) above. If the application is incomplete:

1. The Department shall include in the notice a list of the deficiencies, a statement of the additional information required to make the application complete, and the time by which the applicant must submit a complete application;

2. The Department may refrain from reviewing the substance of the application (or any part thereof) until it is complete;

3. The applicant shall submit a complete proposed plan or request within the time stated in the Department's notification; and

4. The Department may reject the application if the applicant fails to submit a complete application within the time stated in the Department's notification.

(e) The Department shall approve an alternative monitoring plan only if:

1. The proposed alternative monitoring methodology is equivalent for purposes of reliably determining compliance to a continuous emissions monitor which satisfies the criteria listed in (a)1 above by the following:

i. For each item of equipment or source operation on which a continuous emissions monitoring system is not to be installed, the owner or operator identifies another item of equipment or source operation at the facility which is:

(1) Of the same make and model;

(2) Is used under substantially the same conditions;

(3) Will have a continuous emissions monitoring system installed on it; and

(4) Has an emissions rate which will not differ significantly from the emission rate from the corresponding equipment or source operation on which the continuous emissions monitoring system is to be installed; or

ii. For each item of equipment or source operation which a continuous emissions monitor is not to be installed, the owner or operator proposes a monitoring protocol for that equipent or source operation that provides quality-assured, representative monitoring data that an be used to determine continuous compliance consistent with EPA's proposed Enhanced Monitoring guidance, 40 CFR 64 (Federal Register Vol. 58, No. 203, p. 54648-54699). The proposed monitoring protocol should take into consideration site specific factors such as:

i. Control system design;

ii. Operating processes at the facility;

iii. Demonstrated margin of compliance;

iv. The potential variability of emissions; and

v. Established monitoring procedures utilized at the facility to meet other regulatory requirements; and

2. Under the plan, a continuous emissions monitoring system will be installed on each utility boiler at the facility if required under 40 CFR 75 or 76.

(f) As a condition of an approval issued under this section, the Department may impose requirements upon the operation of any equipment or source operation subject to a monitoring plan necessary to minimize any adverse impact upon human health, welfare and the environment.

(g) The approval of a plan under this section is void upon the alteration of any item of equipment or source operation included in the plan (whether or not the item of equipment or source operation has a continuous emissions monitoring system installed) unless:

1. The owner or operator applies for and obtains the Department's approval of a revised plan pursuant to this section, reflecting the proposed alteration; and

2. Before altering the equipment or source operation subject to the plan, the owner or operator applies for and obtains such permits and certificates as are required under N.J.A.C. 7:27-8 and any other applicable law or regulation.

(h) The owner or operator shall comply with the approved plan, and with all conditions imposed by the Department under (f) above.

(i) The Department may revoke an approval issued under this section, by written notice to the owner or operator of the facility which is the subject of the plan, if:

1. Any material condition of the Department's approval of the plan is violated;

2. The Department determines that its decision to grant the approval was materially affected by a misstatement or omission of fact in the request for the approval or any supporting documentation; or

3. The Department determines that the alternative monitoring methodology is not equivalent to a continuous emissions monitor which satisfies the criteria of (a)1 above.

(j) In revoking an approval pursuant to (i) above, the Department shall specify an effective date for the revocation which provides the owner or operator with a reasonable amount of time to install a continuous emissions monitor on the item of equipment or source operation in question.

(k) A person may request an adjudicatory hearing in accordance with the procedure at N.J.A.C. 7:27-8.12, if:

1. The Department has denied the person's application for approval of a plan under this section;

2. The person seeks to contest conditions imposed by the Department under (f) above; or

3. The Department has revoked its approval of the person's plan pursuant to (i) and (j) above.

(l) The owner or operator of an item of equipment or source operation required to have a continuous monitoring system shall not operate the equipment or source operation without such a system, except in accordance with a plan approved under this section. If an item of equipment or a source operation required to have a continuous emissions monitoring system is operating without such a system, without first having received approval of a plan authorizing such operation, it shall not be a defense to an enforcement action that an application for approval of a plan is pending.

(m) A person seeking approval of an alternative monitoring plan shall send the application to the Department at the following address:

4. The quantity of NO_x emitted during the day or 30-day period, as applicable, determined in accordance with N.J.A.C. 7:27-19.15(a) and expressed in pounds or tons;

5. The allowable quantity of NO_x emissions as expressed in pounds or tons for the day or 30-day period as determined according to N.J.A.C. 7:27-19.20, 19.21 or 19.23; and

6. Any other information required to be maintained as a condition of an approval granted under N.J.A.C. 7:27-19.14 and N.J.A.C. 7:27-19.20, 19.21 or 19.23.

(e) The owner or operator of any combustion source that is temporarily combusting fuel oil or other liquid fuel in place of natural gas pursuant to N.J.A.C. 7:27-19.25 shall keep on site a record of the number of hours such fuel has been combusted.

(f) The owner or operator of a combustion source listed in (c) or (e) above shall keep the records required under (d) and (e) above at the facility in a permanently bound log book or by an electronic method that is easily accessible on site and at the time of inspection, in a format that enables the Department to readily determine whether the combustion source is in compliance.

(g) The reporting requirements below apply to the owner or operator of any combustion source that is listed in (c) or (e) above as follows:

1. If a continuous emissions monitoring system has been installed on the equipment or source operation, an owner or operator shall submit to the Department a quarterly report in accordance with the requirement to report excess emissions contained in the Preconstruction Permit and Operating Certificate or an Operating Permit for the equipment or source operation. For an owner or operators subject to (c) above, the information pursuant to (d) above shall be submitted with the report for each day or 30-day period of a violation. If no violations occurred during the quarter, the owner or operator should provide certification that no violations occurred and that the records are maintained at the facility. Certification of the notification should be in accordance with N.J.A.C. 7:27-1.39; or

2. If no such continuous emissions monitoring system has been installed the owner or operator shall submit to the Department on March 1 of each year an annual report for the preceding calendar year. Such annual report shall include any violations which occurred during the previous year. If no violations occurred during the year, the owner or operator shall provide certification that no violations occurred and that the records are maintained at the facility. Certification of the notification shall be in accordance with N.J.A.C. 7:27-1.39.

Chief, Bureau of Technical Services
Air Quality Regulation Program
Department of Environmental Protection
CN-411
Trenton, New Jersey 08625-0411

7:27-19.19 Recordkeeping and reporting

(a) Any person required to record or maintain information or records pursuant to this subchapter shall maintain the required information or records for a period of no less than five years after the record was made. Such person shall make the records available to the Department or to EPA upon request.

(b) Any person required to record or maintain information or records pursuant to this subchapter may submit a request to the Department, in writing, for approval to maintain alternate records. The Department may approve the request if the person demonstrates to the satisfaction of the Department that the alternate records or information are at least as effective as those required by this subchapter in documenting compliance with this subchapter.

(c) The recordkeeping requirements in (d) and (f) below apply to the owner or operator of any combustion source that is:

1. Included in a fuel switching plan approved under N.J.A.C. 7:27-19.14 and 19.20; or

2. Included in a plan for phased compliance approved under N.J.A.C. 7:27-19.14 and N.J.A.C. 7:27-19.21 or 19.23.

(d) For each combustion source listed in (c) above, the owner or operator shall record the following information for each day from May 1 through September 15, for the 30-day period ending on September 16, and for each 30-day period ending on each subsequent day through April 30 of the following year:

1. Information sufficient to identify the combustion source, including a brief description (for example, "dry-bottom coal-fired utility boiler"), its location, its permit number, the company stack designation, and any other identifying numbers, and any other information necessary to distinguish it from other equipment owned or operated by the owner or operator;

2. The day or 30-day period, as applicable, for which the record is being made;

3. The amount, type and higher heating value of each fuel consumed during each day from May 1 through September 15, during the 30-day period ending on September 16, and during each 30-day period ending on each subsequent day through April 30 of the following year;

Amended by R.1995 d.214, effective April 17, 1995 (operative May 23, 1995).
See: 26 N.J.R. 3298(a), 27 N.J.R. 1581(a).

7:27-19.20 Fuel switching

(a) The owner or operator of a combustion source included in a plan for fuel switching is authorized to comply with the plan if the Department approves the plan pursuant to this section and N.J.A.C. 7:27-19.14. The owner or operator's compliance with the plan is in lieu of causing the combustion source to comply with the emission limit under N.J.A.C. 7:27-19.4, 19.5, 19.7, 19.8, 19.9 or 19.10 that would otherwise apply to the combustion source.

(b) A combustion source may be included in a fuel switching plan only if it will be deriving from a cleaner fuel a greater percentage of its total heat input than it derived in the base year.

(c) An owner or operator seeking approval of a plan for fuel switching shall submit an application to the Department by June 22, 1995, in accordance with N.J.A.C. 7:27-19.14(a), (b) and (c). In addition to the information required under N.J.A.C. 7:27-19.14(c), the owner or operator shall include in the application the following information regarding each combustion source that is to combust a cleaner fuel seasonally:

1. Information sufficient to identify the combustion source, including a brief description, (for example, "dry-bottom coal-fired utility boiler" or "oil-fired simple-cycle gas turbine"), its location, its permit number, its company stack designation, any other identifying numbers, and any other information necessary to distinguish it from other equipment owned or operated by the applicant;

2. The maximum gross heat input rate of the combustion source, expressed in million BTUs per hour;

3. The type of fuel or fuels combusted in the combustion source;

4. The maximum allowable NO_x emission rate for the combustion source, determined under (d) below, together with the calculations made to determine that rate;

5. The method to be used to measure the actual NO_x emission rate of each combustion source;

6. A statement that the owner or operator will operate each combustion source included in the plan in accordance with the requirements of (g) below;

7. The name and business telephone number of the individual responsible for recordkeeping and reporting required under N.J.A.C. 7:27-19.19; and

8. Any other information that the Department requests, which is reasonably necessary to enable it to determine whether the source opera-

tions and items of equipment subject to fuel switching will comply with the requirements of this section.

(d) The maximum daily and annual NO_x emission rate for a combustion source included in the fuel switching plan is determined as follows (except that for a coal-fired, wet-bottom utility boiler that uses the tangential or face firing method, only (d)1 through 3 below apply):

1. Establish the base year. The base year is calendar year 1990, unless the Department approves the use of calendar year 1991, 1992 or 1993 as the base year. The Department shall approve the use of 1991, 1992 or 1993 as the base year only if the owner or operator demonstrates that the alternative year is more representative of the normal operation of the combustion source;

2. For each fuel that the combustion source combusted during the base year (established under (d)1 above), determine the heat input (in MMBTU) that the combustion source derived from the combustion of that fuel during the base year;

3. Determine the maximum allowable NO_x emissions rate (in lb/MMBTU) for the combustion of each fuel, under N.J.A.C. 7:27-19.4, 19.5, 19.7, 19.8, 19.9 or 19.10, as applicable;

4. For each fuel, multiply the heat input in the base year (determined under (d)2 above) by the maximum allowable emissions rate (determined under (d)3 above);

5. Add all of the amounts determined under (d)4 above;

6. Divide the total determined under (d)5 above by the sum of all of the heat inputs that the combustion source derived from the combustion of each fuel (determined under (d)2 above). The result is the maximum allowable NO_x emission rate, expressed in lb/MMBTU, provided, however, that the maximum allowable NO_x emission rate shall not be greater than the rate under N.J.A.C. 7:27-19.4, 19.5, 19.7, 19.8, 19.9 or 19.10 that would apply if the combustion source were combusting the primary fuel that it had used in the base year;

7. The calculations under (d)4, 5 and 6 above can be expressed in the following equation:

$$M = \frac{(HI_1 L_1) + (HI_2 \times L_2) + \ldots + (HI_N \times L_N)}{(HI_1 + HI_2 + \ldots + HI_N)}$$

where:

i. M is the maximum allowable NO_x emission rate, in lb/MMBTU;

ii. HI_1 is the heat input that the combustion source derived from the combustion of Fuel 1 during the base year, expressed in MMBTU;

iii. L_1 is the maximum allowable emissions rate (in lb/MMBTU) for the combustion of Fuel 1, under N.J.A.C. 7:27-19.4, 19.5, 19.7, 19.8, 19.9 or 19.10, as applicable;

iv. HI_2 is the heat input that the combustion source derived from the combustion of Fuel 2 during the base year, expressed in MMBTU;

v. L_2 is the maximum allowable emissions rate (in lb/MMBTU) for the combustion of Fuel 2, under N.J.A.C. 7:27-19.4, 19.5, 19.7, 19.8, 19.9 or 19.10, as applicable;

vi. N is number of fuels combusted during the base year;

vii. HI_N is the heat input that the combustion source derived from the combustion of Fuel N during the base year, expressed in MMBTU; and

viii. L_N is the maximum allowable emissions rate (in lb/MMBTU) for the combustion of Fuel N, under N.J.A.C. 7:27-19.4, 19.5, 19.7, 19.8, 19.9 or 19.10, as applicable.

(e) The Department shall approve a plan for fuel switching only if the application satisfies all requirements of (c) above and N.J.A.C. 7:27-19.14. A plan for fuel switching shall be deemed to meet these requirements if it provides for a combustion source to attain compliance with the emission limits under (g)3, 4 and 5 below partly through combustion of cleaner fuel and partly through the use of other NO_x control measures, and satisfies all other requirements of (c) above and N.J.A.C. 7:27-19.14.

(f) Any owner or operator seeking to comply with this subchapter by fuel switching in accordance with this section shall obtain the Department's written approval of the application pursuant to N.J.A.C. 7:27-19.14 before May 1, 1995, and maintain that approval in effect.

(g) Beginning in calendar year 1995, the owner or operator shall operate each combustion source included in the plan in compliance with the following:

1. All conditions of the Department's written approval of the fuel switching plan shall be met;

2. From May 1 through September 15 of each year, the combustion source shall combust the cleaner fuel exclusively, or derive a higher percentage of its total heat input from cleaner fuel than the percentage it derived from May 1 through September 15 of the base year;

3. During each calendar day from May 1 through September 15 of each year, the combustion source shall emit NO_x at an average rate no higher than the maximum allowable NO_x emission rate determined under (d) above; provided however, that a coal-fired, wet-bottom utility boiler that uses the tangential or face firing method, the maximum allowable NO_x emission rate shall be 1.0 lb/MMBTU;

2. Add all of the amounts determined under (j)1 above;

3. Multiply the sum determined under (j)2 above by the maximum NO_x emissions rate determined under (d) above. The result is the limit on annual NO_x emissions, expressed in pounds;

4. The calculations under (j)2 and 3 above can be expressed in the following equation:

$$L = M \times (AHI_1 + AHI_2 + \ldots + AHI_N)$$

where:

i. L is the limit on annual NO_x emissions, in pounds;

ii. M is the maximum allowable emissions rate determined under (d) above;

iii. AHI_1 is the heat input that the combustion source derived from the combustion of Fuel 1 during the year, expressed in MMBTU;

iv. AHI_2 is the heat input that the combustion source derived from the combustion of Fuel 2 during the year, expressed in MMBTU;

v. N is number of fuels combusted during the year; and

vi. AHI_N is the heat input that the combustion source derived from the combustion of Fuel N during the year, expressed in MMBTU.

(k) The actual annual NO_x emissions from the combustion source are calculated as follows:

1. Determine the heat input (expressed in MMBTU) that the combustion source actually derived from each fuel it combusted during the year;

2. Determine the average rate (in lb/MMBTU) at which the combustion source actually emitted NO_x when combusting each fuel listed in 1 above, in accordance with N.J.A.C. 7:27-19.15(a);

3. For each fuel combusted during the year, multiply the heat input (determined under (k)1 above) by the average rate of NO_x emissions (determined under (k)2 above);

4. Add all of the amounts determined under (k)3 above;

5. The calculations under (k)3 and 4 above can be expressed in the following equation:

$$AE = (AHI_1 \times AR_1) + (AHI_2 \times AR_2) + \ldots + (AHI_N \times AR_N)$$

where:

i. AE is the actual NO_x emissions during the year from the combustion source, expressed in pounds;

ii. AHI_1 is the heat input that the combustion source actually derived from the combustion of Fuel 1 during the year, expressed in MMBTU;

iii. AR_1 is the average rate at which the combustion source actually emitted NO_x when combusting Fuel 1 during the year, expressed in lb/MMBTU;

iv. AHI_2 is the heat input that the combustion source actually derived from the combustion of Fuel 2 during the year, expressed in MMBTU;

v. AR_2 is the average rate at which the combustion source actually emitted NO_x when combusting Fuel 2 during the year, expressed in lb/MMBTU;

vi. N is number of fuels that the combustion source actually combusted;

vii. AHI_N is the heat input that the combustion source actually derived from the combustion of Fuel N during the year, expressed in MMBTU; and

viii. AR_N is the average rate at which the combustion source actually emitted NO_x when combusting Fuel N during the year, expressed in lb/MMBTU.

(l) For each combustion source included in the approved plan, the owner or operator shall comply with the recordkeeping and reporting requirements of N.J.A.C. 7:27-19.19.

New Rule, R.1995 d.214, effective April 17, 1995 (operative May 23, 1995).
See: 26 N.J.R. 3298(a), 27 N.J.R. 1581(a).

7:27-19.21 Phased compliance—repowering

(a) The owner or operator of a combustion source included in a repowering plan is authorized to comply with the plan if the Department approves the plan pursuant to this section and N.J.A.C. 7:27-19.14. The owner or operator's compliance with the plan is in lieu of causing the combustion source to comply with emission limit under N.J.A.C. 7:27-19.4, 19.5, 19.7, 19.8, 19.9 or 19.10 that would otherwise apply to the combustion source.

(b) By June 22, 1995, an owner or operator seeking approval of a repowering plan shall submit to the Department an application for approval of the repowering plan pursuant to N.J.A.C. 7:27-19.14, including a repowering plan pursuant to (c) below. If an owner or operator fails to submit the application by June 22, 1995, the Department may reject the application. The Department may elect to process a late application, based on how late the application is, the nature and extent of the owner or operator's efforts to submit the application on time, whether the owner or operator advised the Department before the application due date that a late application would be submitted, and the extent of the emission reductions

promised in the late application. If the Department elects to process a late application, the pendency of the application shall not be a defense to a violation of a NO_x emission limit to which the source is subject in the absence of an approved plan.

(c) The owner or operator shall include the following information in the repowering plan with respect to each combustion source included in the plan:

1. Information sufficient to identify the combustion source, including a brief description (for example, "dry-bottom coal-fired utility boiler"), its location, its permit number, the company stack designation, and any other identifying numbers, and any other information necessary to distinguish it from other equipment owned or operated by the owner or operator;

2. A proposed schedule setting dates by which the owner or operator will complete the following milestones for the combustion source:

i. Submitting applications for all necessary permits and certificates if installing a new combustion source;

ii. Obtaining all necessary permits and certificates if installing a new combustion source;

iii. Awarding contracts to repower the source including contracts for the purchase of heat or power from a new combustion source or placing orders for the purchase of component parts and/or equipment necessary to repower the source;

iv. Initiating construction and/or installation of the replacement unit if installing a new combustion source; and

v. Completing the repowering.

3. Specific procedures and schedules for implementing interim measures for control of NO_x emissions for the combustion source during the interim period;

4. A list of all NO_x control technologies available for use with the combustion source;

5. An analysis of the technological feasibility of installing and operating each NO_x emission control technology identified in 4 above for the interim period;

6. For each control technology that is technologically feasible to install and operate, an estimate of the cost of installation and operation;

7. An estimate of the reduction in NO_x emissions attainable through the use of each control technology which is technologically feasible to install and operate. If a control technology installed before the combustion source is repowered cannot be used after repowering, the owner or operator may limit the estimate of emission reductions to those that will be attained during the interim period;

8. An analysis of the cost-effectiveness of each control technology, based on the costs of installation and operation under (c)6 above and the estimated emission reductions under (c)7 above;

9. The NO_x control measures that the owner or operator proposes to employ during the interim period;

10. The proposed interim NO_x emission limit with which the source will comply during the interim period;

11. The method to be used to measure the actual NO_x emission rate of the combustion source;

12. The name and business telephone number of the person responsible for recordkeeping and reporting under N.J.A.C. 7:27-19.19 and under (e)8 below;

13. The location of the proposed replacement unit; and

14. Any other information that the Department requests, which is reasonably necessary to enable it to determine whether the operation of combustion sources included in the repowering plan will comply with the requirements of this section.

(d) The Department shall approve a repowering plan only if the following requirements are satisfied:

1. The application satisfies all the requirements of N.J.A.C. 7:27-19.14 and (c) above, including without limitation the requirement that the proposed repowering plan consider all control technologies available for the control of NO_x emissions from each type of combustion source included in the plan during the interim period;

2. For each combustion source included in the plan, the replacement unit will incorporate advances in the art of air pollution control for the kind and amount of air contaminant emitted;

3. The repowering will improve the efficiency with which each combustion source included in the plan combusts fuel and/or generates power;

4. The completion date listed in (c)2v above is no later than May 1, 1999;

5. For any control technologies described in (c)4 above that the owner or operator does not propose to use on the combustion source, the proposed plan demonstrates that the control technology:

i. Would be ineffective in controlling NO_x emissions from the combustion source;

ii. Is unsuitable for use with the combustion source, or duplicative of control technology which the plan proposes to use;

iii. Would carry costs disproportionate to the improvement in the reduction of the NO_x emissions rate that the control technology is likely to achieve, or disproportionately large in comparison to the total reduction

9. If the plan includes a utility boiler, cause the repowered utility boiler to emit NO_x at a rate no higher than the applicable maximum allowable NO_x listed in Table 6 below (provided however, that the NO_x emission limits in Table 6 shall not be construed to limit the owner or operator's obligations under (e)8 above); and

10. If repowering of any combustion source included in the plan is not completed by May 1, 1999, cease operating the combustion source to be repowered by May 1, 1999.

TABLE 6

Maximum Allowable NO_x Emission Rates for Utility Boilers Which Have Been Repowered (pounds per m illion BTU)

	Firing Method		
Fuel/Boiler Type	Tangential	Face	Cyclone
Coal—Wet Bottom	0.2	0.2	0.2
Coal—Dry Bottom	0.2	0.2	N/A
Oil and/or Gas	0.1	0.1	0.1
Gas Only	0.1	0.1	0.1

(f) Except as provided in (g) below:

1. The Department shall seek comments from the general public before making any final decision to approve or disapprove a proposed repowering plan. The Department shall publish notice of opportunity for public comment in a newspaper of general circulation in the area in which each combustion source included in the plan is located;

2. The Department shall submit any repowering plan (and agreement to repower) approved under this section to EPA, as a proposed revision to New Jersey's State Implementation Plan; and

(g) A repowering plan (and agreement to repower) approved under this section is not required to be submitted to EPA as a proposed revision to New Jersey's State Implementation Plan, if the plan provides that NO_x emissions from each combustion source included in the plan will be controlled during the interim period through one of the following methods:

1. Fuel switching under N.J.A.C. 7:27-19.20, using natural gas as the "cleaner fuel"; or

2. The use of selective non-catalytic reduction from May 1 through September 15 of each year.

in NO_x emissions that the control technology is likely to achieve over its useful life; or

iv. Would carry costs disproportionate to the costs incurred for the control of NO_x emissions from the same type of combustion sources used by other persons in the owner or operator's industry who are also subject to the NO_x RACT requirements of P.L. 101-549, §182(f).

6. For each combustion source included in the plan, the interim emission limit proposed under (c)10 above is the lowest rate that can practicably be achieved at a cost within the limits described in (d)5iii and iv above;

7. For each combustion source included in the plan, the cost of achieving an additional emission reduction beyond the interim emission limit proposed under (c)10 above would be disproportionate to the size and environmental impact of that additional emission reduction; and

8. The owner or operator has entered into an agreement with the Department in accordance with the requirements of (h) below.

(e) An owner or operator who has obtained the Department's approval of a repowering plan shall:

1. Beginning on May 31, 1995, operate all combustion sources included in the approved repowering plan in a manner that complies with the plan and with all conditions of the Department's approval;

2. Meet the compliance milestones in the approved plan;

3. Repower the combustion sources included in the plan by the date specified in the approved plan;

4. Beginning on May 31, 1995, determine the actual NO_x emissions from each combustion source included in the repowering plan in accordance with N.J.A.C. 7:27-19.15(a);

5. If the approved plan provides for the owner or operator to annually adjust the combustion process for a combustion source included in the plan, do so in accordance with the general procedures set forth at N.J.A.C. 7:27-19.16 before May 1 of each calendar year beginning with 1995, until repowering is completed;

6. Beginning on May 31, 1995, comply with the recordkeeping and reporting requirements of N.J.A.C. 7:27-19.19;

7. Within 15 days after the date specified in the approved repowering plan for completion of a milestone listed in (c)2 above, notify the Department in writing that the milestone has or has not been completed. If the milestone has not been completed, the owner or operator shall include in the notice the reason for the delay and the expected date on which the milestone will be completed;

8. Incorporate advances in the art of air pollution control into each repowered source, as required in the preconstruction permit for the replacement equipment;

(h) Before the Department approves a repowering plan, the owner or operator shall enter into a Federally enforceable agreement containing the following provisions:

1. Information sufficient to identify the owner or operator;

2. Information sufficient to identify the combustion source, including a brief description (for example, "dry-bottom coal-fired utility boiler"), its location, its permit number, the company stack designation, and any other identifying numbers, and any other information necessary to distinguish it from other equipment owned or operated by the owner or operator;

3. The owner or operator's undertaking of the following duties:

i. Completing the milestones listed in (c)2 above by specified dates;

ii. Ceasing to operate a combustion source if repowering is not completed by a date specified for that source;

iii. Implementing interim measures to control NO_x emissions from each combustion source during the interim period;

iv. Causing each combustion source to emit NO_x at a rate no greater than a specified interim NO_x emission limit applicable during the interim period;

v. Using a specified method to measure the actual NO_x emission rate of the combustion source; and

vi. Maintaining the Department's approval in effect;

4. A provision for delay of compliance caused by a "force majeure" event beyond the control of and without the fault of the owner or operator;

5. A provision under which the Department can terminate the agreement and its approval of the repowering plan if the owner or operator materially fails to complete the repowering or any other milestone by the date specified in the approved plan. Termination of the agreement and the approval of the plan is in addition to any other remedies the Department has under this chapter and N.J.A.C. 7:27A; and

6. Other provisions necessary to make the agreement Federally enforceable, to accomplish the purposes of this subchapter, or to allow the agreement to be administered effectively.

New Rule, R.1995 d.214, effective April 17, 1995 (operative May 23, 1995).
See: 26 N.J.R. 3298(a), 27 N.J.R. 1581(a).

7:27-19.22 Phased compliance—impracticability of full compliance by May 31, 1995

(a) The owner or operator of a combustion source included in a phased compliance plan is authorized to comply with the plan if the

Department approves the plan pursuant to this section and N.J.A.C. 7:27-19.14. The owner or operator's compliance with the plan is in lieu of causing the combustion source to comply with the emission limit under N.J.A.C. 7:27-19.4, 19.5, 19.7, 19.8, 19.9 or 19.10 that would otherwise apply to the combustion source.

(b) By June 22, 1995, an owner or operator seeking approval of a phased compliance plan shall submit to the Department an application for approval of the phased compliance plan pursuant to N.J.A.C. 7:27-19.14. If an owner or operator fails to submit the application by June 22, 1995, the Department may reject the application. The Department may elect to process a late application, based on how late the application is, the nature and extent of the owner or operator's efforts to submit the application on time, and whether the owner or operator advised the Department before the application due date that a late application would be submitted. If the Department elects to process a late application, the pendency of the application shall not be a defense to a violation of a NO_x emission limit to which the source is subject in the absence of an approved plan. In the application, the owner or operator shall include the following information in addition to the information required under N.J.A.C. 7:27-19.14:

1. The phased compliance plan described in (c) below;

2. A description of the steps that the owner or operator has taken to cause each combustion source included in the plan to attain compliance with the applicable NO_x emission limit under this subchapter; and

3. For each combustion source included in the plan, a detailed explanation of the reasons why the owner or operator believes that compliance with the applicable NO_x emission limit by May 31, 1995 is impracticable.

(c) The owner or operator shall include the following information in the phased compliance plan with respect to each combustion source included in the plan:

1. Information sufficient to identify the combustion source, including a brief description (for example, "dry-bottom coal-fired utility boiler"), its location, its permit number, the company stack designation, and any other identifying numbers, and any other information necessary to distinguish it from other equipment owned or operated by the owner or operator;

2. A proposed schedule setting dates by which the owner or operator will complete the following milestones for the combustion source:

i. Submit applications for all necessary permits and certificates;

ii. Obtain all necessary permits and certificates;

iii. Award contracts for the implementation of control measures or place orders for the purchase of component parts, equipment and/or control apparatus necessary to attain compliance with the applicable NO_x emission limit under this subchapter;

iv. Initiate construction and/or installation of the component parts, equipment and/or control apparatus necessary to attain compliance with the applicable NO_x emission limit under this subchapter; and

v. Attain full compliance with the applicable NO_x emission limit under this subchapter;

3. The NO_x control measures or technology that the owner or operator proposes to employ during the interim period; and

4. Any other information that the Department requests, which is reasonably necessary to enable it to determine whether the operation of combustion sources included in the phased compliance plan will comply with the requirements of this section.

(d) The Department shall approve a phased compliance plan only if the following requirements are satisfied with respect to each combustion source included in the plan:

1. The application satisfies all the requirements of N.J.A.C. 7:27-19.14 and (b) above;

2. The information submitted under (b)1ii above establishes that the owner or operator has made a good faith effort to cause the combustion source to attain compliance with the applicable NO_x emission limit under this subchapter;

3. The information submitted under (b)1iii above, evaluated in light of the criteria set forth in (e) below, establishes that it is impracticable for the combustion source to attain compliance with the applicable NO_x emission limit under this subchapter by May 31, 1995; and

4. The interim period is less than 12 months.

(e) In determining whether compliance with the applicable NO_x emission limit under this subchapter by May 31, 1995 is impracticable, the Department shall apply the following criteria:

1. The amount of time needed to obtain all permits and certificates necessary to attain compliance, following the submission of an administratively complete application;

2. The amount of time needed to obtain all component parts and/or equipment necessary to attain compliance, following the placement of orders for such parts and/or equipment. The estimate of time may reflect shortages in the supply of such parts and/or equipment;

3. The amount of time needed to complete construction and/or installation of the component parts and/or equipment necessary to attain compliance, following the initiation of construction and/or installation; and

4. The nature, extent and probability of any harm to public safety or welfare that could result from accelerating construction and/or installation in order to attain compliance by May 31, 1995. For example, if it were probable that an electric generating utility could not cause all of its electric generating units to attain compliance by that date without subjecting a substantial number of customers to voltage reductions and/or interruptions in electric service, that fact would be relevant in establishing impracticability.

(f) On the date that the approved compliance plan provides for a combustion source to attain full compliance with the applicable NO_x emission limit under this subchapter, the Department's approval of the plan shall expire. Upon expiration of the Department's approval, the combustion source shall be subject to all applicable requirements of this subchapter, including the NO_x emission limits that would have applied to the source in the absence of an approved plan.

(g) An owner or operator who has obtained the Department's approval of a phased compliance plan shall:

1. Operate all combustion sources included in the plan in a manner that complies with the plan and with all conditions of the Department's approval;

2. Meet all milestones in the approved phased compliance plan;

3. Within 15 days after the date of each milestone in the approved phased compliance plan, advise the Department in writing whether the owner or operator has met the milestone; and

4. During the interim period, control NO_x emissions from the combustion source as follows:

i. By adjusting the combustion process in accordance with N.J.A.C. 7:27-19.16, if the source's air-to-fuel ratio can be adjusted in a manner that reduces NO_x emissions; or

ii. By seasonally combusting natural gas in accordance with N.J.A.C. 7:27-19.20, implementing selective non-catalytic reduction, or implementing other measures that the Department determines are appropriate in light of the costs involved and the total quantity of NO_x reductions that will be achieved until the full compliance date listed in (c)2v above.

New Rule, R.1995 d.214, effective April 17, 1995 (operative May 23, 1995).
See: 26 N.J.R. 3298(a), 27 N.J.R. 1581(a).

7:27-19.23 Phased compliance—use of innovative control technology

(a) The owner or operator of a combustion source included in a phased compliance plan is authorized to comply with the plan if the

Department approves the plan pursuant to this section and N.J.A.C. 7:27-19.14. The owner or operator's compliance with the plan is in lieu of causing the combustion source to comply with the emission limit under N.J.A.C. 7:27-19.4, 19.5, 19.7, 19.8, 19.9 or 19.10 that would otherwise apply to the combustion source.

(b) By June 22, 1995, an owner or operator seeking approval of an innovative control technology plan shall submit to the Department an application pursuant to N.J.A.C. 7:27-19.14 and the plan itself pursuant to (c) below. If an owner or operator fails to submit the application by June 22, 1995, the Department may reject the application. The Department may elect to process a late application, based on how late the application is, the nature and extent of the owner or operator's efforts to submit the application on time, whether the owner or operator advised the Department before the application due date that a late application would be submitted, and the extent of the emission reductions promised in the late application. If the Department elects to process a late application, the pendency of the application shall not be a defense to a violation of a NO_x emission limit to which the source would be subject in the absence of an approved plan.

(c) The owner or operator shall include the following information in the innovative control technology plan with respect to each combustion source included in the plan:

1. Information sufficient to identify the combustion source, including a brief description (for example, "dry-bottom coal-fired utility boiler"), its location, its permit number, the company stack designation, and any other identifying numbers, and any other information necessary to distinguish it from other equipment owned or operated by the owner or operator;

2. A description of the NO_x control measures that the owner or operator proposes to employ as innovative control technology;

3. The rate of NO_x emissions that the owner or operator expects that the source will attain in employing the proposed innovative control technology, and the basis for that expectation;

4. Information establishing that the proposed innovative control technology is technically sound and sufficiently developed to be implemented by May 1, 1999;

5. A proposed schedule setting dates by which the owner or operator will complete the following milestones for the combustion source:

i. Submitting applications for all necessary permits and certificates;

ii. Obtaining all necessary permits and certificates;

iii. Awarding contracts for the implementation of the innovative control technology, or placing orders for the purchase of any component parts, equipment and/or control apparatus associated with the innovative control technology;

iv. Awarding contracts and initiating implementation of the innovative control technology (including any construction and/or installation, if applicable); and

v. Completing the implementation of the innovative control technology.

6. Specific procedures and schedules for implementing interim measures for control of NO_x emissions for the combustion source during the interim period;

7. A list of all NO_x control technologies available for interim use with the combustion source during the interim period;

8. An analysis of the technological feasibility of installing and operating each NO_x emission control technology identified in (c)7 above for the interim period;

9. For each control technology that is technologically feasible to install and operate, an estimate of the cost of installation and operation;

10. An estimate of the reduction in NO_x emissions attainable through the use of each control technology which is technologically feasible to install and operate. If a control technology installed before the innovative control technology is implemented cannot be used after that time, the owner or operator may limit the estimate of emission reductions to those that will be attained during the interim period;

11. An analysis of the cost-effectiveness of each control technology, based on the costs of installation and operation under (c)9 above and the estimated emission reductions under (c)10 above;

12. The NO_x control measures that the owner or operator proposes to employ during the interim period;

13. The proposed interim NO_x emission limit with which the source will comply during the interim period;

14. The method to be used to measure the actual NO_x emission rate of the combustion source;

15. The name and business telephone number of the person responsible for recordkeeping and reporting under N.J.A.C. 7:27-19.19 and under (e)8 below; and

16. Any other information that the Department requests, which is reasonably necessary to enable it to determine whether the operation of combustion sources included in the plan will comply with the requirements of this section.

(d) The Department shall approve an innovative control technology plan only if the following requirements are satisfied:

1. The application satisfies all the requirements of N.J.A.C. 7:27-19.14 and (c) above, including the requirement that the plan consider all control technologies available for the control of NO_x emissions during the interim period from each type of combustion source included in the plan;

2. The innovative control technology proposed for each combustion source in the plan:

i. Has a substantial likelihood of enabling the source to achieve greater continuous NO_x emissions reductions than are required to meet the applicable limit under N.J.A.C. 7:27-19.4, 19.5, 19.7, 19.8, 19.9 or 19.10. If the expected extent of NO_x emission reductions is only marginally greater than are required to meet the applicable limit, the proposed innovative control technology will not be deemed to meet this standard;

ii. Is technically sound;

iii. Is sufficiently developed so that it can be implemented by May 1, 1999; and

iv. Cannot practicably be implemented by May 31, 1995.

3. The completion date listed in (c)5v above is no later than May 1, 1999;

4. For any control technologies described in (c)7 above that the owner or operator does not propose to use with the combustion source during the interim period, the proposed plan demonstrates that the control technology:

i. Would be ineffective in controlling NO_x emissions from the combustion source;

ii. Is unsuitable for use with the combustion source, or duplicative of control technology which the plan proposes to use;

iii. Would carry costs disproportionate to the improvement in the reduction of the NO_x emissions rate that the control technology is likely to achieve, or disproportionately large in comparison to the total reduction in NO_x emissions that the control technology is likely to achieve during the interim period; or

iv. Would carry costs disproportionate to the costs incurred for the control of NO_x emissions from the same type of combustion sources used by other persons in the owner or operator's industry who are also subject to the NO_x RACT requirements of P.L. 101-549, 182(f).

5. For each combustion source included in the plan, the interim emission limit proposed under (c)13 above is the lowest rate that can practicably be achieved at a cost within the limits described in (d)4iii and iv above;

6. For each combustion source included in the plan, the cost of achieving an additional emission reduction beyond the interim emission limit proposed under (c)13 above would be disproportionate to the size and environmental impact of that additional emission reduction; and

7. The owner or operator has entered into an agreement with the Department in accordance with the requirements of (h) below.

(e) An owner or operator who has obtained the Department's approval of an innovative control technology plan shall:

1. Beginning on May 31, 1995, operate all combustion sources included in the approved plan in a manner that complies with the plan and with all conditions of the Department's approval;

2. Meet the compliance milestones in the approved plan;

3. Implement the innovative control technology for the combustion sources included in the plan by the date specified in the approved plan;

4. Beginning on May 31, 1995, determine the actual NO_x emissions from each combustion source included in the innovative control technology plan in accordance with N.J.A.C. 7:27-19.15(a);

5. If the approved plan provides for the owner or operator to annually adjust the combustion process for a combustion source included in the plan, do so in accordance with the general procedures set forth at N.J.A.C. 7:27-19.16 before May 1 of each calendar year beginning with 1995, until the innovative control technology is implemented;

6. Beginning on May 31, 1995, comply with the recordkeeping and reporting requirements of N.J.A.C. 7:27-19.19;

7. Within 15 days after the date specified in the approved innovative control technology plan for completion of a milestone listed in (c)5 above, notify the Department in writing that the milestone has or has not been completed. If the milestone has not been completed, the owner or operator shall include in the notice the reason for the delay and the expected date on which the milestone will be completed;

8. Incorporate advances in the art of air pollution control into each source included in the plan, as required in the preconstruction permit for the replacement equipment; and

9. If the innovative control technology for any combustion source included in the plan is not implemented by May 1, 1999, cease operating the combustion source by May 1, 1999.

(f) Except as provided in (g) below:

1. The Department shall seek comments from the general public before making any final decision to approve or disapprove a proposed innovative control technology plan. The Department shall publish notice of opportunity for public comment in a newspaper of general circulation in the area in which each combustion source included in the plan is located;

2. The Department shall submit any innovative control technology plan (and agreement under (h) below) approved under this section to EPA, as a proposed revision to New Jersey's State Implementation Plan; and

3. Upon EPA's approval of the revision to New Jersey's State Implementation Plan, the innovative control technology plan and agreement under (h) below shall be federally enforceable. Plans listed under (g) below shall be federally enforceable upon the issuance of the Department's approval.

(g) An innovative control technology plan approved under this section is not required to be submitted to EPA as a proposed revision to New Jersey's State Implementation Plan, if the plan provides that NO_x emissions from each combustion source included in the plan will be controlled during the interim period through one of the following methods:

1. Fuel switching under N.J.A.C. 7:27-19.20;

2. The use of selective non-catalytic reduction.

(h) Before the Department approves an innovative control technology plan, the owner or operator shall enter into a Federally enforceable agreement containing the following provisions:

1. Information sufficient to identify the owner or operator;

2. Information sufficient to identify the combustion source, including a brief description (for example, "dry-bottom coal-fired utility boiler"), its location, its permit number, the company stack designation, and any other identifying numbers, and any other information necessary to distinguish it from other equipment owned or operated by the owner or operator;

3. The owner or operator's undertaking of the following duties:

i. Completing the milestones listed in (c)5 above by specified dates;

ii. Implementing interim measures to control NO_x emissions from each combustion source during the interim period;

iii. Causing each combustion source to emit NO_x at a rate no greater than a specified interim NO_x emission limit applicable during the interim period;

iv. Using a specified method to measure the actual NO_x emission rate of the combustion source; and

v. Maintaining the Department's approval in effect;

4. A provision for delay of compliance caused by a "force majeure" event beyond the control of and without the fault of the owner or operator;

5. A provision under which the Department can terminate the agreement and its approval of the innovative control technology plan if the owner or operator materially fails to complete implementation of the innovative control technology or any other milestone by the date specified

in the approved plan, or if the innovative control technology program fails to achieve the required reduction levels. By the date specified by the Department in the agreement, in its approval of the plan, or in the notice of termination, the owner or operator shall attain compliance with the NO_x emissions limit under this subchapter that would apply to the combustion source in the absence of an approved plan. Termination of the agreement and the approval of the plan is in addition to any other remedies the Department has under this chapter and N.J.A.C. 7:27A; and

6. Other provisions necessary to make the agreement federally enforceable, to accomplish the purposes of this subchapter, or to allow the agreement to be administered effectively.

New Rule, R.1995 d.214, effective April 17, 1995 (operative May 23, 1995).
See: 26 N.J.R. 3298(a), 27 N.J.R. 1581(a).

7:27-19.24 MEG alerts

(a) During a MEG alert that occurs on or before November 15, 2005, an electric generating unit that is operating at emergency capacity may exceed the NO_x emissions limits applicable under this chapter, including any limits set forth in the unit's permit. This exemption includes up to 12 hours per year of performance testing per boiler or gas turbine, provided this testing is not performed during the ozone season. This exemption is available only if the the owner or operator of an electric generating unit complies with the requirements of this section.

(b) Within two working days after the end of the MEG alert, the electric generating utility shall notify the Department by way of a report confirming the occurrence of the MEG alert. The electric generating utility shall certify the report in accordance with N.J.A.C. 7:27-8.24. In the report, the electric generating utility shall include the following information:

1. Information sufficient to identify each electric generating unit that operated at emergency capacity, including a brief description (for example, "dry-bottom coal-fired utility boiler"), its location, its permit number, any other identifying numbers, and any other information necessary to distinguish it from other equipment owned or operated by the utility;

2. The date and time at which the electric generating utility received notice from the load dispatcher, directing the utility to operate one or more electric generating units at emergency capacity;

3. For each electric generating unit listed in (b)1 above, the date and time at which the electric generating utility began to operate the electric generating unit at emergency capacity;

4. The date and time at which the electric generating utility received notice from the load dispatcher, advising the utility that it could cease operating its electric generating units at emergency capacity;

5. For each electric generating unit listed in (b)1 above, the date and time at which the electric generating utility ceased operating the electric generating unit at emergency capacity;

6. For each electric generating unit listed in 1 above, the amount by which the unit's NO_x emissions (expressed in pounds) during the MEG alert exceeded the maximum quantity of NO_x emissions allowed under this chapter. The excess NO_x emissions shall be calculated as follows for each day that the MEG alert continued:

$$E = (ER-M) \times H$$

where:

i. E is the excess NO_x emissions from the electric generating unit;

ii. ER is the average rate at which the electric generating unit emitted NO_x during the day of the MEG alert, determined in accordance with N.J.A.C. 7:27-19.15(a) and expressed in lb/MMBTU;

iii. M is the most stringent applicable NO_x emissions limit established under this chapter; and

iv. H the actual daily heat input to the electric generating unit during the MEG alert, expressed in MMBTU;

7. A copy of the calculations performed under (b)6 above; and

8. A description of the method by which the electric generating utility has provided or will provide compensatory reductions in NO_x emissions as required under (c) below.

(c) The electric generating utility shall submit to the Department documentation of actual NO_x emission reductions in compensation for the excess NO_x emissions during the MEG alert, in accordance with the following requirements:

1. Within the period beginning three years before the MEG alert begins and ending one year after the MEG alert ends, the electric generating utility shall obtain (or shall have obtained) reductions in NO_x emissions from a combustion source through measures (which may include pollution prevention measures) above and beyond those required under any Federal or State law, rule, regulation, permit or order.

2. The ratio of the amount of the NO_x emission reductions under (c)1 above to the amount of the excess NO_x emissions calculated under (b)6 above shall be 1.3:1; and

3. Emissions reductions from any shutdown or curtailment of operations of a combustion source shall not be credited toward meeting this requirement.

New Rule, R.1995 d.214, effective April 17, 1995 (operative May 23, 1995).
See: 26 N.J.R. 3296(a), 27 N.J.R. 1581(a).

7:27-19.25 Exemption for emergency use of fuel oil

(a) If a combustion source temporarily combusts fuel oil or other liquid fuel in place of natural gas in accordance with this section, the owner or operator is not required to have the combustion source comply with the applicable NO_x emission limits in N.J.A.C. 7:27-19.4, 19.5, 19.7, 19.8, 19.9 or 19.10, or an applicable NO_x emission limit established under N.J.A.C. 7:27-19.13, 19.20, 19.21, 19.22 or 19.23, while the fuel oil or other liquid fuel is burned. On each day that this exemption applies, for purposes of calculating daily or annual NO_x emissions the combustion source will be deemed to have emitted no NO_x and to have derived a heat input of 0.0 BTU.

(b) The exemption under (a) above is available only for a combustion source that uses natural gas as its primary fuel, or is seasonally combusting natural gas pursuant to a plan approved under N.J.A.C. 7:27-19.14 and 19.20. For a combustion source that uses natural gas as its primary fuel, the exemption under (a) above is available at any time during the year. For a combustion source that is seasonally combusting natural gas, the exemption under (a) above is available only from May 1 through September 15. This exemption is also available for those combustion sources which combust refinery gas as a primary fuel.

(c) The owner or operator of the combustion source is eligible for the exemption under (a) above only if the following requirements are met:

1. The owner or operator is not practicably able to obtain a sufficient supply of natural gas;

2. The owner or operator's inability to obtain natural gas is due to circumstances beyond the control of the owner or operator, such as a natural gas curtailment;

3. The combustion source ceases using fuel oil or other liquid fuel in place of natural gas and resumes using natural gas as soon as a sufficient supply of natural gas becomes practicably available;

4. The use of fuel oil or liquid fuel does not exceed 500 hours during any consecutive 12-month period; and

5. The owner or operator satisfies the recordkeeping requirements of N.J.A.C. 7:27-19.19(d) and (e), and the reporting requirements of (d) below.

(d) The owner or operator shall keep records of curtailment periods and incorporate such records into the required quarterly reports submitted to the Department. Such records shall include the following information:

1. Information sufficient to identify each combustion source for which the owner or operator claims an exemption under this section, including a brief description of the source (for example, "dry-bottom coal-fired utility boiler"), its location, its permit number, any other identifying

numbers, and any other information necessary to distinguish it from other equipment owned or operated by the utility;

2. A statement that the owner or operator is not practicably able to obtain a sufficient supply of natural gas;

3. The date and time at which the owner or operator first became practicably unable to obtain natural gas; and

4. A description of the circumstances causing the owner or operator's inability to obtain natural gas.

New Rule, R.1995 d.214, effective April 17, 1995 (operative May 23, 1995).
See: 26 N.J.R. 3298(a), 27 N.J.R. 1581(a).

7:27-19.26 Penalties

Failure to comply with any provision of this subchapter shall subject the owner or operator to civil penalties in accordance with N.J.A.C. 7:27A-3 and applicable criminal penalties including, but not limited to, those set forth at N.J.S.A. 26:2C-28.3 and N.J.S.A. 26:2C-19(f)1 and 2.

Recodified from 7:27-19.20 by R.1995 d.214, effective April 17, 1995 (operative May 23, 1995).
See: 26 N.J.R. 3298(a), 27 N.J.R. 1581(a).