

**New York State Department of Environmental Conservation**

**Permit Review Report**

**Permit ID: 2-6206-00012/00016    Modification Number: 2**



**11/22/2005**

**Facility Identification Data**

Name: CON ED-EAST RIVER GENERATING STATION  
Address: 701-827 EAST 14TH ST  
NEW YORK, NY 10009

**Owner/Firm**

Name: CONSOLIDATED EDISON COMPANY OF NEW YORK INC  
Address: 4 IRVING PL RM 828  
NEW YORK, NY 10003-3502, USA  
Owner Classification: Corporation/Partnership

**Permit Contacts**

Division of Environmental Permits:  
Name: ELIZABETH A CLARKE  
Address: ONE HUNTERS POINT PLAZA  
47-40 21ST ST  
LONG ISLAND CITY, NY 11101-5407  
Phone:7184824997

Division of Air Resources:  
Name: THOMAS R CHRISTOFFEL  
Address: NYSDEC  
625 BROADWAY  
ALBANY, NY 12233  
Phone:5184028401

Air Permitting Contact:  
Name: OLEG KROTOFF  
Address: CONSOLIDATED EDISON CO OF NY INC  
4 IRVING PLACE - RM 828  
NEW YORK, NY 10003-3502  
Phone:2124604413

**Permit Description**

**Introduction**

The Title V operating air permit is intended to be a document containing only enforceable terms and conditions as well as any additional information, such as the identification of emission units, emission points, emission sources and processes, that makes the terms meaningful. 40 CFR Part 70.7(a)(5) requires that each Title V permit have an accompanying "...statement that sets forth the legal and factual basis for the draft permit conditions". The purpose for this permit review report is to satisfy the above requirement by providing pertinent details regarding the permit/application data and permit conditions in a more easily understandable format. This report will also include background narrative and explanations of regulatory decisions made by the reviewer. It should be emphasized that this permit review report, while based on information contained in the permit, is a separate document and is not itself an enforceable term and condition of the permit.

**New York State Department of Environmental Conservation**

**Permit Review Report**

**Permit ID: 2-6206-00012/00016 Modification Number: 2**

**11/22/2005**



**Summary Description of Proposed Project**

Based on performance testing for the East River Units 1 and 2, Con Ed is seeking minor modifications of its Title V permit to substitute a more stringent, single PM-10 emissions limit for existing "primary" and "secondary" PM-10 limits; to eliminate duct burner heat input limits; and to reduce the maximum annual potential PM-10 emissions tonnage by approximately 16 percent, from 218.7 tons per year (tpy) (total for both turbines) to 184.7 tpy.

This modification also removes the emission limits for sulfuric acid. The calculations performed for the original permit showed the emissions of sulfuric acid would be less than 7 tons per year. These emissions are not significant, as defined in 40 CFR 52.21, and are not needed in the permit.

**Attainment Status**

CON ED-EAST RIVER GENERATING STATION is located in the town of MANHATTAN in the county of NEW YORK.

The attainment status for this location is provided below. (Areas classified as attainment are those that meet all ambient air quality standards for a designated criteria air pollutant.)

<b>Criteria Pollutant</b>	<b>Attainment Status</b>
Particulate Matter (PM)	ATTAINMENT
Particulate Matter < 10µ in diameter (PM10)	MODERATE NON-ATTAINMENT
Sulfur Dioxide (SO2)	ATTAINMENT
Ozone*	SEVERE NON-ATTAINMENT
Oxides of Nitrogen (NOx)**	ATTAINMENT
Carbon Monoxide (CO)	ATTAINMENT

\* Ozone is regulated in terms of the emissions of volatile organic compounds (VOC) and/or oxides of nitrogen (NOx) which are ozone precursors.

\*\* NOx has a separate ambient air quality standard in addition to being an ozone precursor

**Facility Description**

This facility generates electricity and steam. It operates one (1) 1930 MMBtu/hr boiler, one (1) 1982 MMBtu/hr boiler, and ten (10) 180 MMBtu/hr boilers. All boilers combust residual oil and the two very large boilers also combust natural gas. The 10 large boilers will have the capability to fire natural gas.

This facility also includes two (2) truncated combined cycle combustion turbine units with heat recovery steam generators. These two units comprise the East River Repowering Project.

**New York State Department of Environmental Conservation**

**Permit Review Report**

**Permit ID: 2-6206-00012/00016 Modification Number: 2**



**11/22/2005**

**Permit Structure and Description of Operations**

The Title V permit for CON ED-EAST RIVER GENERATING STATION is structured in terms of the following hierarchy: facility, emission unit, emission point, emission source and process.

A facility is defined as all emission sources located at one or more adjacent or contiguous properties owned or operated by the same person or persons under common control. The facility is subdivided into one or more emission units (EU). Emission units are defined as any part or activity of a stationary facility that emits or has the potential to emit any federal or state regulated air pollutant. An emission unit is represented as a grouping of processes (defined as any activity involving one or more emission sources (ES) that emits or has the potential to emit any federal or state regulated air pollutant). An emission source is defined as any apparatus, contrivance or machine capable of causing emissions of any air contaminant to the outdoor atmosphere, including any appurtenant exhaust system or air cleaning device.

[NOTE: Indirect sources of air contamination as defined in 6 NYCRR Part 203 (i.e. parking lots) are excluded from this definition]. The applicant is required to identify the principal piece of equipment (i.e., emission source) that directly results in or controls the emission of federal or state regulated air pollutants from an activity (i.e., process). Emission sources are categorized by the following types:

- combustion - devices which burn fuel to generate heat, steam or power
- incinerator - devices which burn waste material for disposal
- control - emission control devices
- process - any device or contrivance which may emit air contaminants that is not included in the above categories.

CON ED-EAST RIVER GENERATING STATION is defined by the following emission unit(s):

Emission unit ER0003 - Emission Unit R0003 represents a GE Model No. Pg7241(fa) combustion turbine (CT) generator firing natural gas(and low sulfur distillate oil (during an emergency and up to 16 hours per year) (ERRP 2). This CT train has an associated heat recovery steam generator (HRSG) with duct burner that will be fired with only natural gas. ERRP 2 will exhaust through emission point 00002.

During any period, each HRSG's duct burners shall be allowed to burn fuel at the maximum rated capacity, 26,664 million BTU per day on a block 24-hour basis (midnight to midnight).

Emission unit ER0003 is associated with the following emission points (EP):  
00002

It is further defined by the following process(es):

Process: FO3 is located at Building BOILERHS - One combustion turbine (ERRP 2) firing low sulfur (0.045% maximum) distillate oil without supplementary duct firing in the heat recovery steam generator. Distillate oil will only be fired in an emergency (as defined in 6 NYCRR 201-2.1(b)(12)) and test firing up to 16 hours per year. Water injection and selective catalytic reduction are used to control NOx emissions and an oxidation catalyst is used to control CO and VOC emissions. During test firing only combustion turbine may be fired. Process information in section iv covers only emissions during testing. During emergency operation both the combustion turbine and duct burner may be fired.

Process: NG3 is located at Building BOILERHS - Combustion turbine (ERRP 2) firing natural gas with

**New York State Department of Environmental Conservation**

**Permit Review Report**

**Permit ID: 2-6206-00012/00016 Modification Number: 2**

**11/22/2005**



or without operation of heat recovery steam generator. Dry low NOx burner and selective catalytic reduction are used to control NOx emissions and an oxidation catalyst is used to control CO and VOC emissions.

Emission unit ER0002 - Large boilers 110 through 119. All boilers have the capability to burn residual oil and have the capability to burn natural gas for ignition purposes. The present maximum total heat input for boilers 110 through 119 is 1,800 MMBtu/hr. After commencement of the East River Repowering Project (ERRP-1) the maximum total heat input for boilers 110 through 119 will be limited to 900 MMBtu/hr. This emission unit also includes a GE Model No. Pg7241(fa) combustion turbine (CT) generator firing natural gas and low sulfur distillate oil (during an emergency and up to 16 hours per year) (ERRP 1). This CT train has an associated heat recovery steam generator (HRSG) with duct burner that will be fired with only natural gas. ERRP 1 and the large boilers 110 through 119 will exhaust through emission points 00001.

During any period, each HRSG's duct burners shall be allowed to burn fuel at the maximum rated capacity, 26,664 million BTU per day on a block 24-hour basis (midnight to midnight).

Emission unit ER0002 is associated with the following emission points (EP):  
00001

It is further defined by the following process(es):

Process: FO1 is located at Building BOILERHS - One combustion turbine (ERRP 1) firing low sulfur (0.045% maximum) distillate oil without supplementary duct firing in the heat recovery steam generator. Distillate oil will only be fired in an emergency (as defined in 6 NYCRR 201-2.1(b)(12)) and test firing up to 16 hours per year. Water injection and selective catalytic reduction are used to control NOx emissions, and an oxidation catalyst is used to control CO and VOC emissions. During test firing, only combustion turbine may be fired. Process information in section iv covers only emissions during testing. During emergency operations both the combustion turbine and duct burner may be fired.

Process: NG2 is located at 1 - 4, Building PKBOILER - This process includes: ten (10) package boilers (Nos. 110 through 119) rated at 180 MMBtu/hr, each. This process covers the combustion of natural gas in these boilers

Process: NG4 is located at Building BOILERHS - Combustion Turbine (ERRP 1) firing natural gas with or without operation of heat recovery steam generator (HRSG). Dry low NOx burners and SCR are used to control NOx emissions and an oxidation catalyst is used to control CO

Process: RO2 is located at 1 - 4, Building PKBOILER - This process includes: ten (10) package boilers (Nos. 110 through 119) rated at 180 MMBtu/hr, each. This process covers the combustion of residual oil in these boilers

Emission unit ER0001 - Very large boilers 60 and 70. Both boilers have the capability to burn residual oil and natural gas, and can fire these fuels alone or together. Boiler 60 exhausts through emission point 00003 and boiler 70 exhausts through emission point 00004.

Emission unit ER0001 is associated with the following emission points (EP):  
00003, 00004

It is further defined by the following process(es):

Process: NG1 is located at 1 - 4, Building BOILERHS - This process includes: one (1) opposed and one (1) face fired boiler (Nos. 60 and 70) rated at 1930 and 1982 MMBtu/hr, respectively. This process covers the combustion of natural gas in these boilers.

Process: RO1 is located at 1 - 4, Building BOILERHS - This process includes: one (1) opposed and one

**New York State Department of Environmental Conservation**

**Permit Review Report**

**Permit ID: 2-6206-00012/00016 Modification Number: 2**

**11/22/2005**



(1) face fired boiler (Nos. 60 and 70) rated at 1930 and 1982 MMBtu/hr, respectively. This process covers the combustion of residual oil in these boilers.

Emission unit ER0011 - Vapor extractors for units 60 and 70.

Emission unit ER0011 is associated with the following emission points (EP):

VE060, VE070

It is further defined by the following process(es):

Process: VEX is located at 1 - 4, Building BOILERHS - There are two steam driven turbine generators at East River. Each steam turbine has a lube oil system, which is equipped with a vapor extractor to prevent a build up of hydrogen in the oil reservoir. The vapor extractors are insignificant sources of emissions.

**Title V/Major Source Status**

CON ED-EAST RIVER GENERATING STATION is subject to Title V requirements. This determination is based on the following information:

This facility is a major source of oxides of nitrogen (NOx). The potential (and actual) emissions of NOx exceed 25 tons per year, which is the major source threshold for severe nonattainment ozone areas.

**Program Applicability**

The following chart summarizes the applicability of CON ED-EAST RIVER GENERATING STATION with regards to the principal air pollution regulatory programs:

<b>Regulatory Program</b>	<b>Applicability</b>
PSD	YES
NSR (non-attainment)	YES
NESHAP (40 CFR Part 61)	NO
NESHAP (MACT - 40 CFR Part 63)	NO
NSPS	YES
TITLE IV	YES
TITLE V	YES
TITLE VI	NO
RACT	YES

**New York State Department of Environmental Conservation  
Permit Review Report**

**Permit ID: 2-6206-00012/00016 Modification Number: 2**

**11/22/2005**



SIP

YES

---

**NOTES:**

**PSD** Prevention of Significant Deterioration (40 CFR 52) - requirements which pertain to major stationary sources located in areas which are in attainment of National Ambient Air Quality Standards (NAAQS) for specified pollutants.

**NSR** New Source Review (6 NYCRR Part 231) - requirements which pertain to major stationary sources located in areas which are in non-attainment of National Ambient Air Quality Standards (NAAQS) for specified pollutants.

**NESHAP** National Emission Standards for Hazardous Air Pollutants (40 CFR 61) - contaminant and source specific emission standards established prior to the Clean Air Act Amendments of 1990 (CAAA) which were developed for 9 air contaminants (inorganic arsenic, radon, benzene, vinyl chloride, asbestos, mercury, beryllium, radionuclides, and volatile HAP's)

**MACT** Maximum Achievable Control Technology (40 CFR 63) - contaminant and source specific emission standards established by the 1990 CAAA. Under Section 112 of the CAAA, the US EPA is required to develop and promulgate emissions standards for new and existing sources. The standards are to be based on the best demonstrated control technology and practices in the regulated industry, otherwise known as MACT. The corresponding regulations apply to specific source types and contaminants.

**NSPS** New Source Performance Standards (40 CFR 60) - standards of performance for specific stationary source categories developed by the US EPA under Section 111 of the CAAA. The standards apply only to those stationary sources which have been constructed or modified after the regulations have been proposed by publication in the Federal Register and only to the specific contaminant(s) listed in the regulation.

**Title IV** Acid Rain Control Program (40 CFR 72 thru 78) - regulations which mandate the implementation of the acid rain control program for large stationary combustion facilities.

**Title VI** Stratospheric Ozone Protection (40 CFR 82, Subparts A thru G) - federal requirements that apply to sources which use a minimum quantity of CFC's (chlorofluorocarbons), HCFC's (hydrofluorocarbons) or other ozone depleting substances or regulated substitute substances in equipment such as air conditioners, refrigeration equipment or motor vehicle air conditioners or appliances.

**RACT** Reasonably Available Control Technology (6 NYCRR Parts 212.10, 226, 227-2, 228, 229, 230, 232, 233, 234, 235, 236) - the lowest emission limit that a specific source is capable of meeting by application of control technology that is reasonably available, considering technological and economic feasibility. RACT is a control strategy used to limit emissions of VOC's and NOx for the purpose of attaining the air quality standard for ozone. The term as it is used in the above table refers to those state air pollution control regulations which specifically regulate VOC and NOx emissions.



**New York State Department of Environmental Conservation**

**Permit Review Report**

**Permit ID: 2-6206-00012/00016 Modification Number: 2**

**11/22/2005**

SIP State Implementation Plan (40 CFR 52, Subpart HH) - as per the CAAA, all states are empowered and required to devise the specific combination of controls that, when implemented, will bring about attainment of ambient air quality standards established by the federal government and the individual state. This specific combination of measures is referred to as the SIP. The term here refers to those state regulations that are approved to be included in the SIP and thus are considered federally enforceable.

**Compliance Status**

Facility is out of compliance with specific requirements (see attached compliance schedule)  
Compliance Schedule:

<b>Location</b>	<b>Short Description</b>	<b>Regulation</b>
<b>Facility/EU/EP/Process/ES</b>		
E-R0001	Smoke Emission Limitations.	6NYCRR 227-1.3
E-R0002	Smoke Emission Limitations.	6NYCRR 227-1.3
E-R0003	Smoke Emission Limitations.	6NYCRR 227-1.3

**Compliance Discussion:**

CON ED-EAST RIVER GENERATING STATION is in violations of the following requirement(s): This facility was in non-compliance with the opacity standard contained in 6 NYCRR Part 227-1.3. Consolidated Edison signed a consent order with the Department in 1997 and has to submit a progress report every 6 months, certifying that they are in compliance with this regulation.

**SIC Codes**

SIC or Standard Industrial Classification code is an industrial code developed by the federal Office of Management and Budget for use, among other things, in the classification of establishments by the type of activity in which they are engaged. Each operating establishment is assigned an industry code on the basis of its primary activity, which is determined by its principal product or group of products produced or distributed, or services rendered. Larger facilities typically have more than one SIC code.

<b>SIC Code</b>	<b>Description</b>
4911	ELECTRIC SERVICES
4961	STEAM SUPPLY

**SCC Codes**

SCC or Source Classification Code is a code developed and used by the USEPA to categorize processes which result in air emissions for the purpose of assessing emission factor information. Each SCC represents a unique process or function within a source category logically associated with a point of air pollution emissions. Any operation that causes air pollution can be represented by one or more SCC's.

<b>SCC Code</b>	<b>Description</b>
-----------------	--------------------

**New York State Department of Environmental Conservation**



**Permit Review Report**

**Permit ID: 2-6206-00012/00016 Modification Number: 2**

**11/22/2005**

- 1-01-006-01 EXTERNAL COMBUSTION BOILERS - ELECTRIC GENERATION  
ELECTRIC UTILITY BOILER - NATURAL GAS  
Boilers > 100 MBtu/Hr except Tangential
- 1-01-004-01 EXTERNAL COMBUSTION BOILERS - ELECTRIC GENERATION  
ELECTRIC UTILITY BOILER - RESIDUAL OIL  
Grade 6 Oil: Normal Firing
- 2-01-001-06 INTERNAL COMBUSTION ENGINES - ELECTRIC GENERATION  
ELECTRIC UTILITY INTERNAL COMBUSTION ENGINE - DISTILLATE OIL  
(DIESEL)  
RECIPROCATING: EVAPORATIVE LOSSES (FUEL STORAGE AND DELIVERY SYSTEM)
- 2-01-001-01 INTERNAL COMBUSTION ENGINES - ELECTRIC GENERATION  
ELECTRIC UTILITY INTERNAL COMBUSTION ENGINE - DISTILLATE OIL  
(DIESEL)  
Turbine
- 2-01-002-01 INTERNAL COMBUSTION ENGINES - ELECTRIC GENERATION  
ELECTRIC UTILITY INTERNAL COMBUSTION ENGINE - NATURAL GAS  
Turbine
- 2-04-003-03 INTERNAL COMBUSTION ENGINES - ENGINE TESTING  
INTERNAL COMBUSTION ENGINE: ENGINE TESTING -  
TURBINE  
DISTILLATE OIL

**Facility Emissions Summary**

In the following table, the CAS No. or Chemical Abstract Series code is an identifier assigned to every chemical compound. [NOTE: Certain CAS No.'s contain a 'NY' designation within them. These are not true CAS No.'s but rather an identification which has been developed by the department to identify groups of contaminants which ordinary CAS No.'s do not do. As an example, volatile organic compounds or VOC's are identified collectively by the NY CAS No. 0NY998-00-0.] The PTE refers to the Potential to Emit. This is defined as the maximum capacity of a facility or air contaminant source to emit any air contaminant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or air contamination source to emit any air contaminant, including air pollution control equipment and/or restrictions on the hours of operation, or on the type or amount or material combusted, stored, or processed, shall be treated as part of the design only if the limitation is contained in federally enforceable permit conditions. The PTE Range represents an emission range for a contaminant. Any PTE quantity that is displayed represents a facility-wide emission cap or limitation for that contaminant. If no PTE quantity is displayed, the PTE Range is provided to indicate the approximate magnitude of facility-wide emissions for the specified contaminant in terms of tons per year (tpy). The term 'HAP' refers to any of the hazardous air pollutants listed in section 112(b) of the Clean Air Act Amendments of 1990. Total emissions of all hazardous air pollutants are listed under the special NY CAS No. 0NY100-00-0. In addition, each individual hazardous air pollutant is also listed under its own specific CAS No. and is identified in the list below by the (HAP) designation.

Cas No.	Contaminant Name	PTE	
		lbs/yr	Range
000630-08-0	CARBON MONOXIDE		>= 250 tpy
0NY100-00-0	HAP		>= 50 tpy but < 100 tpy
007439-92-1	LEAD (HAP)		> 0 but < 10 tpy
0NY210-00-0	OXIDES OF NITROGEN		>= 250 tpy

New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 2-6206-00012/00016 Modification Number: 2

11/22/2005



0NY075-00-0	PARTICULATES	>= 250 tpy
0NY075-00-5	PM-10	>= 250 tpy
0NY035-16-0	SULFUR (S 035)	>= 25 tpy but < 40 tpy
007446-09-5	SULFUR DIOXIDE	>= 250 tpy
007664-93-9	SULFURIC ACID	>= 250 tpy
0NY998-00-0	VOC	>= 100 tpy but < 250 tpy

**NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS**

**Item A: Emergency Defense - 6NYCRR Part 201-1.5**

An emergency constitutes an affirmative defense to an action brought for noncompliance with emissions limitations or permit conditions for all facilities in New York State.

(a) The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

- (1) An emergency occurred and that the facility owner and/or operator can identify the cause(s) of the emergency;
- (2) The equipment at the permitted facility causing the emergency was at the time being properly operated;
- (3) During the period of the emergency the facility owner and/or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
- (4) The facility owner and/or operator notified the Department within two working days after the event occurred. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding, the facility owner and/or operator seeking to establish the occurrence of an emergency has the burden of proof.

(c) This provision is in addition to any emergency or upset provision contained in any applicable requirement.

**Item B: Public Access to Recordkeeping for Title V Facilities - 6NYCRR Part 201-1.10(b)**

The Department will make available to the public any permit application, compliance plan, permit, and monitoring and compliance certification report pursuant to Section 503(e) of the Act, except for information entitled to confidential treatment pursuant to 6NYCRR Part 616 - Public Access to records and Section 114(c) of the Act.

**Item C: Timely Application for the Renewal of Title V Permits - 6 NYCRR Part**

**New York State Department of Environmental Conservation**

**Permit Review Report**

**Permit ID: 2-6206-00012/00016 Modification Number: 2**



**11/22/2005**

**201-6.3(a)(4)**

Owners and/or operators of facilities having an issued Title V permit shall submit a complete application at least 180 days, but not more than eighteen months, prior to the date of permit expiration for permit renewal purposes.

**Item D: Certification by a Responsible Official - 6 NYCRR Part**

**201-6.3(d)(12)**

Any application, form, report or compliance certification required to be submitted pursuant to the federally enforceable portions of this permit shall contain a certification of truth, accuracy and completeness by a responsible official. This certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

**Item E: Requirement to Comply With All Conditions - 6 NYCRR Part**

**201-6.5(a)(2)**

The permittee must comply with all conditions of the Title V facility permit. Any permit non-compliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

**Item F: Permit Revocation, Modification, Reopening, Reissuance or Termination, and Associated Information Submission Requirements - 6 NYCRR Part 201-6.5(a)(3)**

**201-6.5(a)(3)**

This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

**Item G: Cessation or Reduction of Permitted Activity Not a Defense - 6 NYCRR Part 201-6.5(a)(5)**

**201-6.5(a)(5)**

It shall not be a defense for a permittee in an enforcement action to claim that a cessation or reduction in the permitted activity would have been necessary in order to maintain compliance with the conditions of this permit.

**Item H: Property Rights - 6 NYCRR Part 201-6.5(a)(6)**

**201-6.5(a)(6)**

This permit does not convey any property rights of any sort or any exclusive privilege.

**Item I: Severability - 6 NYCRR Part 201-6.5(a)(9)**

**201-6.5(a)(9)**

**New York State Department of Environmental Conservation**

**Permit Review Report**

**Permit ID: 2-6206-00012/00016 Modification Number: 2**



**11/22/2005**

If any provisions, parts or conditions of this permit are found to be invalid or are the subject of a challenge, the remainder of this permit shall continue to be valid.

**Item J: Permit Shield - 6 NYCRR Part 201-6.5(g)**

All permittees granted a Title V facility permit shall be covered under the protection of a permit shield, except as provided under 6 NYCRR Subpart 201-6. Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that such applicable requirements are included and are specifically identified in the permit, or the Department, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the major stationary source, and the permit includes the determination or a concise summary thereof. Nothing herein shall preclude the Department from revising or revoking the permit pursuant to 6 NYCRR Part 621 or from exercising its summary abatement authority. Nothing in this permit shall alter or affect the following:

- i. The ability of the Department to seek to bring suit on behalf of the State of New York, or the Administrator to seek to bring suit on behalf of the United States, to immediately restrain any person causing or contributing to pollution presenting an imminent and substantial endangerment to public health, welfare or the environment to stop the emission of air pollutants causing or contributing to such pollution;
- ii. The liability of a permittee of the Title V facility for any violation of applicable requirements prior to or at the time of permit issuance;
- iii. The applicable requirements of Title IV of the Act;
- iv. The ability of the Department or the Administrator to obtain information from the permittee concerning the ability to enter, inspect and monitor the facility.

**Item K: Reopening for Cause - 6 NYCRR Part 201-6.5(i)**

This Title V permit shall be reopened and revised under any of the following circumstances:

- i. If additional applicable requirements under the Act become

**New York State Department of Environmental Conservation**

**Permit Review Report**

**Permit ID: 2-6206-00012/00016 Modification Number: 2**



**11/22/2005**

applicable where this permit's remaining term is three or more years, a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire, unless the original permit or any of its terms and conditions has been extended by the Department pursuant to the provisions of Part 201-6.7 and Part 621.

ii. The Department or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

iii. The Department or the Administrator determines that the Title V permit must be revised or reopened to assure compliance with applicable requirements.

iv. If the permitted facility is an "affected source" subject to the requirements of Title IV of the Act, and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

Proceedings to reopen and issue Title V facility permits shall follow the same procedures as apply to initial permit issuance but shall affect only those parts of the permit for which cause to reopen exists.

Reopenings shall not be initiated before a notice of such intent is provided to the facility by the Department at least thirty days in advance of the date that the permit is to be reopened, except that the Department may provide a shorter time period in the case of an emergency.

**Item L:**

**Permit Exclusion - ECL 19-0305**

The issuance of this permit by the Department and the receipt thereof by the Applicant does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the Department may have against the Applicant for violations based on facts and circumstances alleged to have occurred or existed prior to the effective date of this permit, including, but not limited to, any enforcement action authorized pursuant to the provisions of applicable federal law, the Environmental Conservation Law of the State of New York (ECL) and Chapter III of the Official Compilation of the Codes, Rules and

**New York State Department of Environmental Conservation**

**Permit Review Report**

**Permit ID: 2-6206-00012/00016 Modification Number: 2**



**11/22/2005**

Regulations of the State of New York (NYCRR). The issuance of this permit also shall not in any way affect pending or future enforcement actions under the Clean Air Act brought by the United States or any person.

**Item M: Federally Enforceable Requirements - 40 CFR 70.6(b)**

All terms and conditions in this permit required by the Act or any applicable requirement, including any provisions designed to limit a facility's potential to emit, are enforceable by the Administrator and citizens under the Act. The Department has, in this permit, specifically designated any terms and conditions that are not required under the Act or under any of its applicable requirements as being enforceable under only state regulations.

**NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS**

**Item A: General Provisions for State Enforceable Permit Terms and Condition - 6 NYCRR Part 201-5**

Any person who owns and/or operates stationary sources shall operate and maintain all emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and existing laws, and shall operate the facility in accordance with all criteria, emission limits, terms, conditions, and standards in this permit. Failure of such person to properly operate and maintain the effectiveness of such emission units and emission control devices may be sufficient reason for the Department to revoke or deny a permit.

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

**Regulatory Analysis**

<b>Location Facility/EU/EP/Process/ES</b>	<b>Regulation</b>	<b>Short Description</b>	<b>Condition</b>
FACILITY	ECL 19-0301	Powers and Duties of the Department with respect to air pollution control	1-11
E-R0002/-/FO1	40CFR 52-A.21(j)	Best Available Control Technology	2-18, 97, 98, 99, 100,

New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 2-6206-00012/00016 Modification Number: 2

11/22/2005



E-R0002/-/NG4	40CFR 52-A.21(j)	Best Available Control Technology	102 2-21, 107, 108, 109, 110, 111, 112, 113
E-R0003/-/FO3	40CFR 52-A.21(j)	Best Available Control Technology	2-24, 128, 129, 130, 131, 133
E-R0003/-/NG3	40CFR 52-A.21(j)	Best Available Control Technology	2-27, 142, 143, 144, 145, 146, 147, 148
FACILITY	40CFR 60-A.11	General provisions - compliance with standards and maintenance requirements	57
FACILITY	40CFR 60-A.12	General provisions - Circumvention	58
FACILITY	40CFR 60-A.13	General provisions - Monitoring requirements	59
FACILITY	40CFR 60-A.14	General provisions - Modification	60
FACILITY	40CFR 60-A.15	General provisions - Reconstruction	61
FACILITY	40CFR 60-A.4	General provisions - Address	46
FACILITY	40CFR 60-A.7(a)	Notification and Recordkeeping	47
FACILITY	40CFR 60-A.7(b)	Notification and Recordkeeping	48
FACILITY	40CFR 60-A.7(c)	Notification and Recordkeeping	49
FACILITY	40CFR 60-A.7(f)	Notification and Recordkeeping	50
FACILITY	40CFR 60-A.8(a)	Performance Tests	51
FACILITY	40CFR 60-A.8(b)	Performance Tests	52
FACILITY	40CFR 60-A.8(c)	Performance Tests	53
FACILITY	40CFR 60-A.8(d)	Performance Tests	54
FACILITY	40CFR 60-A.8(e)	Performance Tests	55
FACILITY	40CFR 60-A.8(f)	Performance Tests	56
E-R0002/-/NG4/HRSG1	40CFR 60-Db.49b(d)	Reporting and Recordkeeping Requirements.	123
E-R0003/-/NG3/HRSG2	40CFR 60-Db.49b(d)	Reporting and Recordkeeping Requirements.	154
E-R0002/-/FO1	40CFR 60-GG.332(a)	Standard for Nitrogen Oxides for Gas Turbines > 100 mmBtu/hr	103
E-R0002/-/NG4	40CFR 60-GG.332(a)	Standard for Nitrogen Oxides for Gas Turbines > 100 mmBtu/hr	118, 119



# New York State Department of Environmental Conservation

## Permit Review Report

Permit ID: 2-6206-00012/00016 Modification Number: 2

11/22/2005

E-R0003/-/FO3	40CFR 60-GG.332(a)	Standard for Nitrogen Oxides for Gas Turbines > 100 mmBtu/hr	134
E-R0003/-/NG3	40CFR 60-GG.332(a)	Standard for Nitrogen Oxides for Gas Turbines > 100 mmBtu/hr	149, 150
E-R0002/-/FO1	40CFR 60-GG.334(h)	Fuel Content	2-19, 2-20
E-R0002/-/NG4	40CFR 60-GG.334(h)	Fuel Content	2-22, 2-23
E-R0003/-/FO3	40CFR 60-GG.334(h)	Fuel Content	2-25, 2-26
E-R0003/-/NG3	40CFR 60-GG.334(h)	Fuel Content	2-28, 2-29
FACILITY	40CFR 68	Chemical accident prevention provisions	2-15
FACILITY	40CFR 72	Permits regulation	62
E-R0001	40CFR 72	Permits regulation	90
E-R0002/-/FO1	40CFR 75-B.11(d)	Continuous emission monitoring - specific provisions for monitoring SO2 emissions gas-fired units and oil-fired units	106
E-R0002/-/NG4	40CFR 75-B.11(d)	Continuous emission monitoring - specific provisions for monitoring SO2 emissions gas-fired units and oil-fired units	122
E-R0003/-/FO3	40CFR 75-B.11(d)	Continuous emission monitoring - specific provisions for monitoring SO2 emissions gas-fired units and oil-fired units	137
E-R0003/-/NG3	40CFR 75-B.11(d)	Continuous emission monitoring - specific provisions for monitoring SO2 emissions gas-fired units and oil-fired units	153
FACILITY	40CFR 82	Protection of Stratospheric Ozone	63
FACILITY	40CFR 82-F	Protection of Stratospheric Ozone - recycling and emissions reduction	2-16
FACILITY	6NYCRR 200.6	Acceptable ambient air quality.	2-1
FACILITY	6NYCRR 200.7	Maintenance of equipment.	2-4
FACILITY	6NYCRR 201-1.4	Unavoidable noncompliance and violations	156
FACILITY	6NYCRR 201-1.7	Recycling and Salvage	2-5
FACILITY	6NYCRR 201-1.8	Prohibition of reintroduction of collected contaminants to the air	2-6
FACILITY	6NYCRR 201-3.2(a)	Exempt Activities - Proof of eligibility	2-7
FACILITY	6NYCRR 201-3.3(a)	Trivial Activities - proof of eligibility	2-8
E-R0002	6NYCRR 201-5	State Facility Permit	2-30



New York State Department of Environmental Conservation

Permit Review Report

Permit ID: 2-6206-00012/00016 Modification Number: 2

11/22/2005

E-R0003	6NYCRR 201-5	General Provisions State Facility Permit	2-31
FACILITY	6NYCRR 201-6	General Provisions Title V Permits and the Associated Permit Conditions	23, 65, 66
FACILITY	6NYCRR 201-6.5(a)(4)	General conditions	2-9
FACILITY Fees 2-2	6NYCRR 201-6.5(a)(7)	General conditions	
FACILITY	6NYCRR 201-6.5(a)(8)	General conditions	2-10
FACILITY	6NYCRR 201-6.5(c)	Permit conditions for Recordkeeping and Reporting of Compliance Monitoring	1-1
FACILITY	6NYCRR 201-6.5(c)(2)	Permit conditions for Recordkeeping and Reporting of Compliance Monitoring	1-2
FACILITY	6NYCRR 201-6.5(c)(3)(ii)	Permit conditions for Recordkeeping and Reporting of Compliance Monitoring	1-3
FACILITY	6NYCRR 201-6.5(d)(5)	Compliance schedules	2-11
FACILITY	6NYCRR 201-6.5(e)	Compliance Certification	1-4
FACILITY	6NYCRR 201-6.5(f)(6)	Off Permit Changes	2-12
FACILITY	6NYCRR 202-1.1	Required emissions tests.	2-13
FACILITY	6NYCRR 202-2.1	Emission Statements - Applicability	28
FACILITY	6NYCRR 202-2.5	Emission Statements - record keeping requirements.	29
E-R0001	6NYCRR 204-1.6	Standard Requirements	67, 68
E-R0001	6NYCRR 204-2.1	Authorization and Responsibilities of the NOx Authorized Account Representative	69
E-R0001	6NYCRR 204-4.1	Compliance Certification Report	70, 71, 72
E-R0001	6NYCRR 204-7.1	Submission of NOx Allowance Transfers	73
E-R0001	6NYCRR 204-8.1	General Requirements	74, 75, 76
E-R0001	6NYCRR 204-8.2	Initial Certification and Recertification Procedures	77, 78
E-R0001	6NYCRR 204-8.3	Out of Control Periods	79
E-R0001	6NYCRR 204-8.7	Additional Requirements to Provide Heat Input Data for Allocations Purposes	80
FACILITY	6NYCRR 211.2	General Prohibitions - air pollution prohibited.	160
FACILITY	6NYCRR 211.3	General Prohibitions - visible emissions limited	2-14
E-R0011	6NYCRR 212.6	Opacity Limitation	155
FACILITY	6NYCRR 215	Open Fires	2-3
E-R0002/-/FO1	6NYCRR 225-1.2(a)(1)	Sulfur in Fuel Limitations Pre January 1, 1988 (SIP standards).	95
E-R0003/-/FO3	6NYCRR 225-1.2(a)(1)	Sulfur in Fuel Limitations Pre January	126

New York State Department of Environmental Conservation



Permit Review Report

Permit ID: 2-6206-00012/00016 Modification Number: 2

11/22/2005

FACILITY	6NYCRR 225-1.2(a)(2)	1, 1988 (SIP standards). Sulfur in Fuel Limitations Post 12/31/87.	1-5
FACILITY	6NYCRR 225-1.4	Exceptions contingent upon fuel shortage.	33
E-R0001	6NYCRR 225-1.7	Emission and fuel monitoring.	81
E-R0002	6NYCRR 225-1.7	Emission and fuel monitoring.	92
FACILITY	6NYCRR 225-1.8	Reports, sampling and analysis.	34
FACILITY	6NYCRR 225-1.8(d)	Reports, sampling, and analysis	35
E-R0001/-/RO1	6NYCRR 227-1.2(a)(1)	Particulate Emissions from Liquid Fuels.	91
E-R0002/-/RO2	6NYCRR 227-1.2(a)(1)	Particulate Emissions from Liquid Fuels.	124
E-R0002/-/RO2	6NYCRR 227-1.2(a)(2)	Particulate Emissions Firing Liquid Fuels Excluding Distillate Oil. (see narrative)	163
E-R0001	6NYCRR 227-1.3	Smoke Emission Limitations.	82, 83
E-R0002	6NYCRR 227-1.3	Smoke Emission Limitations.	93, 94
E-R0003	6NYCRR 227-1.3	Smoke Emission Limitations.	125
E-R0002/-/FO1	6NYCRR 227-1.3(a)	Smoke Emission Limitations.	96
E-R0003/-/FO3	6NYCRR 227-1.3(a)	Smoke Emission Limitations.	127
FACILITY	6NYCRR 227-2.1	Applicability.	36
FACILITY	6NYCRR 227-2.5(b)	System-wide averaging option.	37
FACILITY	6NYCRR 227-2.6(b)	CEMS requirements	38
E-R0001	6NYCRR 227-3.12	AARs - Authorized Account Representatives.	84
FACILITY	6NYCRR 231-2.4	Permit Requirements	1-6, 1-8, 2-17, 39, 40, 41, 42

**Applicability Discussion:**

Mandatory Requirements: The following facility-wide regulations are included in all Title V permits:

ECL 19-301.

This section of the Environmental Conservation Law establishes the powers and duties assigned to the Department with regard to administering the air pollution control program for New York State.

6NYCRR Part 200-.6

Acceptable ambient air quality - prohibits contravention of ambient air quality standards without mitigating measures

**New York State Department of Environmental Conservation**

**Permit Review Report**

**Permit ID: 2-6206-00012/00016 Modification Number: 2**



**11/22/2005**

6NYCRR Part 200-.7

Anyone owning or operating an air contamination source which is equipped with an emission control device must operate the control consistent with ordinary and necessary practices, standards and procedures, as per manufacturer's specifications and keep it in a satisfactory state of maintenance and repair so that it operates effectively

6NYCRR Part 201-1.4

This regulation specifies the actions and recordkeeping and reporting requirements for any violation of an applicable state enforceable emission standard that results from a necessary scheduled equipment maintenance, start-up, shutdown, malfunction or upset in the event that these are unavoidable.

6NYCRR Part 201-1.7

Requires the recycle and salvage of collected air contaminants where practical

6NYCRR Part 201-1.8

Prohibits the reintroduction of collected air contaminants to the outside air

6NYCRR Part 201-3.2(a)

An owner and/or operator of an exempt emission source or unit may be required to certify that it operates within the specific criteria described in this Subpart. All required records must be maintained on-site for a period of 5 years and made available to department representatives upon request. In addition, department representatives must be granted access to any facility which contains exempt emission sources or units, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

6NYCRR Part 201-3.3(a)

The owner and/or operator of a trivial emission source or unit may be required to certify that it operates within the specific criteria described in this Subpart. All required records must be maintained on-site for a period of 5 years and made available to department representatives upon request. In addition, department representatives must be granted access to any facility which contains trivial emission sources or units subject to this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

6NYCRR Part 201-5

This regulation applies to those permit terms and conditions which are not federally enforceable. It specifies the applicability criteria for state facility permits, the information to be included in all state facility permit applications as well as the permit content, terms of permit issuance, and sets guidelines for modifying state

**New York State Department of Environmental Conservation  
Permit Review Report**

**Permit ID: 2-6206-00012/00016 Modification Number: 2**



**11/22/2005**

facility permits and allowing for operational flexibility. For permitting purposes, this rule specifies the need to list all emission units except those that are exempt or trivial pursuant to Subpart 201-3 in the permit application and provide a description of the emission unit's processes and products. Finally, this rule also provides the Department the authority to include this and any other information that it deems necessary to identify applicable Federal standards, recordkeeping and reporting requirements, and establish terms and conditions that will ensure compliance with the national ambient air quality standards.

6NYCRR Part 201-6

This regulation applies to those terms and conditions which are subject to Title V permitting. It establishes the applicability criteria for Title V permits, the information to be included in all Title V permit applications as well as the permit content and terms of permit issuance. This rule also specifies the compliance, monitoring, recordkeeping, reporting, fee, and procedural requirements that need to be met to obtain a Title V permit, modify the permit and demonstrate conformity with applicable requirements as listed in the Title V permit. For permitting purposes, this rule specifies the need to identify and describe all emission units, processes and products in the permit application as well as providing the Department the authority to include this and any other information that it deems necessary to determine the compliance status of the facility.

6NYCRR Part 201-6.5(c)

This requirement specifies, in general terms, what information must be contained in any required compliance monitoring records and reports. This includes the date, time and place of any sampling, measurements and analyses; who performed the analyses; analytical techniques and methods used as well as any required QA/QC procedures; results of the analyses; the operating conditions at the time of sampling or measurement and the identification of any permit deviations. All such reports must also be certified by the designated responsible official of the facility.

6NYCRR Part 201-6.5(c)(2)

This requirement specifies that all compliance monitoring and recordkeeping is to be conducted according to the terms and conditions of the permit and follow all QA requirements found in applicable regulations. It also requires monitoring records and supporting information to be retained for at least 5 years from the time of sampling, measurement, report or application. Support information is defined as including all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

6NYCRR Part 201-6.5(c)(3)(ii)

This regulation specifies any reporting requirements incorporated into the permit must include provisions regarding the notification and reporting of permit deviations and incidences of noncompliance stating the probable cause of such deviations, and any corrective actions or preventive measures taken.

**New York State Department of Environmental Conservation**

**Permit Review Report**

**Permit ID: 2-6206-00012/00016 Modification Number: 2**



**11/22/2005**

6NYCRR Part 201-6.5(e)

Sets forth the general requirements for compliance certification content; specifies an annual submittal frequency; and identifies the EPA and appropriate regional office address where the reports are to be sent.

6NYCRR Part 202-1.1

This regulation allows the department the discretion to require an emission test for the purpose of determining compliance. Furthermore, the cost of the test, including the preparation of the report are to be borne by the owner/operator of the source.

6NYCRR Part 202-2.1

Requires that emission statements shall be submitted on or before April 15th each year for emissions of the previous calendar year.

6NYCRR Part 202-2.5

This rule specifies that each facility required to submit an emission statement must retain a copy of the statement and supporting documentation for at least 5 years and must make the information available to department representatives.

6NYCRR Part 211-.2

This regulation prohibits any emissions of air contaminants to the outdoor atmosphere which may be detrimental to human, plant or animal life or to property, or which unreasonably interferes with the comfortable enjoyment of life or property regardless of the existence of any specific air quality standard or emission limit.

6 NYCRR Part 211.3

This condition requires that the opacity (i.e., the degree to which emissions other than water reduce the transmission of light) of the emissions from any air contamination source be less than 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent.

6 NYCRR Part 215

Prohibits open fires at industrial and commercial sites.

40 CFR Part 68.

This Part lists the regulated substances and their applicability thresholds and sets the requirements for stationary sources concerning the prevention of accidental releases of these substances.

40 CFR Part 82, Subpart F

Subpart F requires the reduction of emissions of class I and class II refrigerants to the lowest achievable level during the service, maintenance, repair, and disposal of appliances in accordance with section 608 of the Clean Air Act Amendments of 1990. This subpart applies to any person servicing, maintaining, or repairing appliances

**New York State Department of Environmental Conservation  
Permit Review Report**

**Permit ID: 2-6206-00012/00016 Modification Number: 2**



**11/22/2005**

except for motor vehicle air conditioners. It also applies to persons disposing of appliances, including motor vehicle air conditioners, refrigerant reclaimers, appliance owners, and manufacturers of appliances and recycling and recovery equipment. Those individuals, operations, or activities affected by this rule, may be required to comply with specified disposal, recycling, or recovery practices, leak repair practices, recordkeeping and/or technician certification requirements.

**Facility Specific Requirements**

In addition to Title V, CON ED-EAST RIVER GENERATING STATION has been determined to be subject to the following regulations:

40CFR 52-A.21 (j)

BACT determinations are made on a case-by-case basis and can be no less stringent than any requirement that exists in the current State Implementation Plan (SIP) or 40 CFR 60 and 61. It has been determined by Con Ed that running the heat recovery steam generators at their maximum rated capacity, 26,664 million BTU/hour, will not result in an increase of particulate/PM-10 emissions.

Also, the contaminant listed in the conditions limiting oil firing to 16 hours per year has been changed from sulfuric acid to sulfur. The emissions of sulfuric acid have been calculated to be less than 7 tons per year and are not significant.

40CFR 60-A.11

This regulation specifies the type of opacity monitoring requirements in relation to compliance with the standards and maintenance requirements. At this facility, continuous opacity monitors are used.

40CFR 60-A.12

This regulation prohibits an owner or operator from concealing emissions in violation of applicable standards by any means.

40CFR 60-A.13

This regulation specifies how monitoring shall be performed and which methods and appendices are used to determine if the monitoring is adequate and in compliance with the regulated standards.

40CFR 60-A.14

This regulation requires the unit to be in compliance with any applicable emissions standard within 180 days of completion of any physical or operational change.

40CFR 60-A.15

This regulation defines the term reconstruction and what is and is not considered to be a reconstruction project, for the purpose of rule applicability.

40CFR 60-A.4

This condition lists the USEPA Region 2 address for the submittal of all communications to the "Administrator". In addition, all such communications must be copied to NYSDEC Bureau of

**New York State Department of Environmental Conservation**

**Permit Review Report**

**Permit ID: 2-6206-00012/00016 Modification Number: 2**

**11/22/2005**



Enforcement and Compliance Assurance.

40CFR 60-A.7 (a)

This regulation requires any owner or operator subject to a New Source Performance Standard (NSPS) to furnish the Administrator with notification of the dates of: construction or reconstruction, initial startup, any physical or operational changes, commencement of performance testing for continuous monitors and anticipated date for opacity observations as required.

40CFR 60-A.7 (b)

This regulation requires the owner or operator to maintain records of the occurrence and duration of any startup, shutdown, or malfunction of the source or control equipment or continuous monitoring system.

40CFR 60-A.7 (c)

This requirement details the information to be submitted in excess emissions and monitoring systems performance reports which must be submitted at least semi-annually for sources with compliance monitoring systems.

40CFR 60-A.7 (f)

This condition specifies requirements for maintenance of files of all measurements, including continuous monitoring system (CMS), monitoring device, and performance testing measurements; all CMS performance evaluations; all CMS or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices for at least two years.

40CFR 60-A.8 (a)

This regulation contains the requirements for the completion date and reporting of Performance Testing (stack testing), at the facility. Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, the owner or operator of the facility must conduct performance test(s) and furnish a written report of the test results.

40CFR 60-A.8 (b)

This regulation contains the requirements for Performance test methods and procedures, to be used by the owner or operator, of the affected facility.

40CFR 60-A.8 (c)

This condition contains the requirements for operating conditions, of the emission source, during performance testing.

40CFR 60-A.8 (d)

This regulation contains the requirements for advance notification of Performance (stack) testing.

40CFR 60-A.8 (e)

This regulation requires the facility to provide appropriate sampling ports, safe platforms and utilities as

**New York State Department of Environmental Conservation**

**Permit Review Report**

**Permit ID: 2-6206-00012/00016 Modification Number: 2**

**11/22/2005**



necessary for Performance (stack) testing.

40CFR 60-A.8 (f)

This regulation requires that Performance (stack) tests consist of three runs unless otherwise specified. The rule also designates the allowable averaging methods for the analysis of the results.

40CFR 60-Db.49b (d)

This regulation applies to the heat recovery steam generators on the gas turbine cogeneration units (ERRP1 and 2). It requires Con Ed to record and keep records of the daily fuel usage in the duct burners and to calculate the annual capacity factor of these units.

40CFR 60-GG.332 (a)

This regulation sets the emission limit for oxides of nitrogen (NOx) from the gas turbines at the facility. These emission limits are as follows:

When firing DISTILLATE OIL

9 ppm; 72.61 lbs/hr

When firing NATURAL GAS

3 ppm; 33.83 lbs/hr (duct burner on)

2 ppm; 14.63 lbs/hr (duct burner off)

40CFR 60-GG.334 (h)

This regulation requires the applicant to monitor the sulfur and nitrogen content of the fuel being burned in the turbine.

40CFR 72

In order to reduce acid rain the the U.S. and Canada, Title IV of the Clean Air Act Amendments of 1990 requires the establishment of a program to reduce emissions of SO<sub>2</sub> and NO<sub>x</sub> (sulfur dioxide and oxides of nitrogen). Fossil fuel burning electric utility companies are a major source of these contaminants in the US. These sources were regulated in a phased approach. Phase I, which began in 1995, requires 110 of the higher-emitting utility plants in the eastern and Midwest states to meet intermediate SO<sub>2</sub> emission limitations. Phase II, which began in 2000, tightens the emission limitations and expands the coverage to most fossil fuel burning utilities. The utilities are given "allowances" which is a limited authorization to emit one ton of SO<sub>2</sub>. The utilities are required to limit SO<sub>2</sub> emissions to the number of allowances they hold. Some can benefit however by reducing their emissions and selling their excess allowances. Part 72 contains the means of implementing this portion of Title IV of the Clean Air Act.

40CFR 75-B.11 (d)

This section deals with the measurements of SO<sub>2</sub> in gas-fired and oil-fired systems only. It specifies requirements in addition to the general operating requirements in § 75.10 and provides for alternative methods for estimating hourly SO<sub>2</sub> mass emissions.

40CFR 82

**New York State Department of Environmental Conservation**

**Permit Review Report**

**Permit ID: 2-6206-00012/00016 Modification Number: 2**

**11/22/2005**



The purpose of this regulation is to implement standards on the protection of stratospheric ozone through the control of chloroflourocarbons (CFCs).

6NYCRR 201-6.5 (c) (3) (ii)

This regulation specifies any reporting requirements incorporated into the permit must include provisions regarding the notification and reporting of permit deviations and incidences of noncompliance stating the probable cause of such deviations, and any corrective actions or preventive measures taken.

6NYCRR 204-1.6

This condition requires the designated representative of the permittee to make submissions for the NOx Budget Program. The Program is designed to mitigate the interstate transport of ground level ozone and nitrogen oxides, a ground level ozone precursor.

6NYCRR 204-2.1

This condition states the submission requirements for the NOx Budget Trading Program. The Program is designed to mitigate the interstate transport of ground level ozone and nitrogen oxides, a ground level ozone precursor.

6NYCRR 204-4.1

This condition covers the compliance certification report requirements for the NOx Budget Program.

6NYCRR 204-7.1

This condition lists the requirements for transfer of allowances in the NOx Budget Program.

6NYCRR 204-8.1

This condition lists the general requirements for the NOx Budget trading program. They include, but are not limited to monitoring requirements, certification, record keeping and reporting.

6NYCRR 204-8.2

This condition covers the procedures for initially certifying and recertifying the monitoring systems of the unit to meet the requirements of the NOx Budget Program

6NYCRR 204-8.3

This condition states the requirements for data substitution during times when the monitoring systems to not meet applicable quality assurance requirements.

6NYCRR 204-8.7

This condition is a requirement for monitoring and reporting if a particular monitoring scenario is utilized.

6NYCRR 212 .6

This regulation requires that the opacity, or degree to which emissions reduce the transmission of light, from this source must be no greater than 20% during any 6-minute period.

6NYCRR 225-1.2 (a) (1)

## New York State Department of Environmental Conservation

### Permit Review Report

Permit ID: 2-6206-00012/00016 Modification Number: 2

11/22/2005



This regulation provides the specific limits for the amount of sulfur in the fuel being burned at the facility. For this facility, that limit is 0.045% sulfur by weight for distillate oil fired in the gas turbine cogeneration units..

#### 6NYCRR 225-1.2 (a) (2)

This regulation prohibits any person from selling, offering for sale, purchasing or using any fuel which contains sulfur in a quantity exceeding the limitations set forth in Table 1, Table 2, or Table 3 of this section.

#### 6NYCRR 225-1.4

This regulation allows the Commissioner of the NYSDEC to issue an order granting a temporary variance from the sulfur-in-fuel limitations in 6 NYCRR Part 225-1 where it can be shown, to the commissioner's satisfaction, that there is an insufficient supply of conforming fuel, either of the proper type required for use in a particular air contamination source or generally throughout an area of the State.

#### 6NYCRR 225-1.7

This regulation requires the use of continuous emissions monitors to monitor the emissions of sulfur dioxide. This applies to facilities with a total heat input greater than 250 million BTU per hour, are equipped with approved sulfur dioxide control equipment and are subject to the sulfur dioxide equivalent emission rate pursuant to 6 NYCRR Part 225-1.5(a). For this facility the emissions of sulfur dioxide are determined by the daily fuel usage, the electrical output and hourly generation rate of the facility and the heat content, sulfur content and ash content for the fuel being burned. A report of the amount of sulfur dioxide emitted is submitted to the Department on a semi-annual basis.

#### 6NYCRR 225-1.8

This regulation requires an owner or operator of a facility which purchases and fires coal and/or oil to submit reports to the commissioner containing fuel analysis data, information on the quantity of the fuel received, burned, and results of any stack sampling, stack monitoring and any other procedures to ensure compliance with the provisions of 6 NYCRR Part 225-1.

#### 6NYCRR 225-1.8 (d)

This condition requires that all sampling, compositing and analyzing of fuel samples to determine compliance with the sulfur limitations in the fuel be done in a manner acceptable to the Department.

#### 6NYCRR 227-1.2 (a) (1)

This regulation requires that particulate emissions not exceed 0.1 pounds of particulates per million BTU of heat input, for facilities that burn oil, coal tar or any liquid fuel derived from coal. For this facility the limit applies to all of the boilers.

#### 6NYCRR 227-1.2 (a) (2)

This rule limits particulate emissions to 0.10 pound per million Btu heat input from any stationary combustion installation with a maximum heat input capacity exceeding 50 million Btu per hour but no greater than 250 million Btu per hour using oil (other than distillate oil), coal tar, or any liquid fuel derived from coal.

#### 6NYCRR 227-1.3

This condition requires that the opacity of the emissions not exceed 20% on a six minute average.

**New York State Department of Environmental Conservation**



**Permit Review Report**

**Permit ID: 2-6206-00012/00016 Modification Number: 2**

**11/22/2005**

Opacity is the degree to which emissions reduce the transmission of light and obscure the view of an object in the background. For this facility, the opacity will be monitored with a continuous opacity monitor on the stack.

6NYCRR 227-1.3 (a)

This regulation prohibits any person from operating a stationary combustion installation which emits smoke equal to or greater than 20% opacity except for one six-minute period per hour of not more than 27% opacity. At this facility the opacity emissions are continuously monitored.

6NYCRR 227-2.1

This condition notes that a facility is subject to the reasonably available control technology (RACT) for oxides of nitrogen (NOx). The NOx RACT limit for the boilers at this facility is 0.20 pounds of NOx per million BTU of heat input.

6NYCRR 227-2.5 (b)

The system-wide average shall consist of a weighted average allowable emission rate based upon the weighted average of actual emissions from units that are operating. Excess reductions utilized in the system-wide average may only be counted from the lowest allowable emission rate. Simply put, if there is a more stringent emission limit than RACT already in place on the unit, then excess reductions may only be counted from below that emission rate.

Con Ed submitted their system wide averaging of NOx emissions on March 15, 1994 and is in compliance with the requirements specified in this approved plan.

6NYCRR 227-2.6 (b)

This condition requires that a continuous emissions monitor system (CEMS), to monitor the emissions of oxides of nitrogen (NOx) be installed and operated according to the specifications of the manufacturer. The data gathered by the CEMS must be submitted to the Department on a quarterly basis.

6NYCRR 227-3.12

This condition requires the facility to have an Authorized Account Representative for the Pre 2003 NOx Budget Trading Program.

6NYCRR 231-2.4

The provisions of Subpart 231-2 apply to new or modified major facilities. Particulate matter less than 10 microns in size (PM-10) is a non-attainment contaminant in Manhattan County. For this modification, the emission limit of Particulate matter/PM-10 for each truncated combined cycle combustion turbine unit is 92.35 tons per year.

**Compliance Certification**

Summary of monitoring activities at CON ED-EAST RIVER GENERATING STATION:

<b>Location Facility/EU/EP/Process/ES</b>	<b>Type of Monitoring</b>	<b>Cond No.</b>
E-R0002/-/FO1	work practice involving specific operations	2-18



# New York State Department of Environmental Conservation

## Permit Review Report

Permit ID: 2-6206-00012/00016 Modification Number: 2

11/22/2005

E-R0002/-/FO1	continuous emission monitoring (cem)	97
E-R0002/-/FO1	work practice involving specific operations	98
E-R0002/-/FO1	work practice involving specific operations	99
E-R0002/-/FO1	work practice involving specific operations	100
E-R0002/-/FO1	continuous emission monitoring (cem)	102
E-R0002/-/NG4	intermittent emission testing	2-21
E-R0002/-/NG4	continuous emission monitoring (cem)	107
E-R0002/-/NG4	continuous emission monitoring (cem)	108
E-R0002/-/NG4	continuous emission monitoring (cem)	109
E-R0002/-/NG4	continuous emission monitoring (cem)	110
E-R0002/-/NG4	work practice involving specific operations	111
E-R0002/-/NG4	intermittent emission testing	112
E-R0002/-/NG4	intermittent emission testing	113
E-R0003/-/FO3	work practice involving specific operations	2-24
E-R0003/-/FO3	continuous emission monitoring (cem)	128
E-R0003/-/FO3	work practice involving specific operations	129
E-R0003/-/FO3	work practice involving specific operations	130
E-R0003/-/FO3	work practice involving specific operations	131
E-R0003/-/FO3	continuous emission monitoring (cem)	133
E-R0003/-/NG3	intermittent emission testing	2-27
E-R0003/-/NG3	continuous emission monitoring (cem)	142
E-R0003/-/NG3	continuous emission monitoring (cem)	143
E-R0003/-/NG3	continuous emission monitoring (cem)	144
E-R0003/-/NG3	continuous emission monitoring (cem)	145
E-R0003/-/NG3	work practice involving specific operations	146
E-R0003/-/NG3	intermittent emission testing	147
E-R0003/-/NG3	intermittent emission testing	148
E-R0002/-/NG4/HRSG1	record keeping/maintenance procedures	123
E-R0003/-/NG3/HRSG2	record keeping/maintenance procedures	154
E-R0002/-/FO1	continuous emission monitoring (cem)	103
E-R0002/-/NG4	continuous emission monitoring (cem)	118
E-R0002/-/NG4	continuous emission monitoring (cem)	119
E-R0003/-/FO3	continuous emission monitoring (cem)	134
E-R0003/-/NG3	continuous emission monitoring (cem)	149
E-R0003/-/NG3	continuous emission monitoring (cem)	150
E-R0002/-/FO1	record keeping/maintenance procedures	2-19
E-R0002/-/FO1	record keeping/maintenance procedures	2-20
E-R0002/-/NG4	record keeping/maintenance procedures	2-22
E-R0002/-/NG4	record keeping/maintenance procedures	2-23
E-R0003/-/FO3	record keeping/maintenance procedures	2-25
E-R0003/-/FO3	record keeping/maintenance procedures	2-26
E-R0003/-/NG3	record keeping/maintenance procedures	2-28
E-R0003/-/NG3	record keeping/maintenance procedures	2-29
E-R0002/-/FO1	record keeping/maintenance procedures	106
E-R0002/-/NG4	record keeping/maintenance procedures	122
E-R0003/-/FO3	record keeping/maintenance procedures	137
E-R0003/-/NG3	record keeping/maintenance procedures	153
E-R0002	work practice involving specific operations	2-30
E-R0003	work practice involving specific operations	2-31
FACILITY	record keeping/maintenance procedures	1-3
FACILITY	record keeping/maintenance procedures	1-4
FACILITY	record keeping/maintenance procedures	28



# New York State Department of Environmental Conservation

## Permit Review Report

Permit ID: 2-6206-00012/00016 Modification Number: 2

11/22/2005

E-R0001	record keeping/maintenance procedures	72
E-R0001	record keeping/maintenance procedures	78
E-R0001	record keeping/maintenance procedures	80
E-R0011	record keeping/maintenance procedures	155
E-R0002/-/FO1	record keeping/maintenance procedures	95
E-R0003/-/FO3	record keeping/maintenance procedures	126
FACILITY	work practice involving specific operations	1-5
E-R0001	record keeping/maintenance procedures	81
E-R0002	record keeping/maintenance procedures	92
FACILITY	record keeping/maintenance procedures	34
E-R0001/-/RO1	intermittent emission testing	91
E-R0002/-/RO2	intermittent emission testing	124
E-R0002/-/RO2	continuous emission monitoring (cem)	163
E-R0001	continuous emission monitoring (cem)	82
E-R0002	continuous emission monitoring (cem)	93
E-R0002/-/FO1	continuous emission monitoring (cem)	96
E-R0003/-/FO3	continuous emission monitoring (cem)	127
FACILITY	record keeping/maintenance procedures	37
FACILITY	record keeping/maintenance procedures	38
FACILITY	intermittent emission testing	1-6
FACILITY	intermittent emission testing	1-8
FACILITY	intermittent emission testing	2-17

### Basis for Monitoring

The emission limit for PM-10 is being revised with this permit modification. The limit for each combustion turbine/heat recovery steam generation (HRSG) unit is now 21 pounds of PM-10 per hour. This change is being made because of the better overall performance of the East River Repowering Project turbine units with regard to emissions of PM-10. With this change, the potential emissions of PM-10 have been reduced by 16 percent.

The original permit had restrictions on the maximum heat input for the HRSGs. Because of the better overall performance of these units, this heat input restriction has been removed in this permit modification. The maximum heat input for the HRSGs is now 26,664 million BTU/hour.

The conditions allowing distillate oil firing during emergencies and up to 16 hours per year for testing have been revised. In the original condition the contaminant of concern was sulfuric acid. Calculations in the original permit showed the emissions of sulfuric acid would be less than 7 tons per year, and therefore below the PSD significance level. For this reason the contaminant of concern in the conditions limiting the firing of oil to 16 hours per year has been changed to sulfur.