

Permit ID: 2-6007-00259/00033 Renewal Number: 3 06/05/2024

#### **Facility Identification Data**

Name: NYC-DOC - RIKERS ISLAND Address: 17-25 HAZEN ST EAST ELMHURST, NY 11370

#### **Owner/Firm**

Name: NYC DEPT OF CORRECTION Address: 75-20 ASTORIA BLVD EAST ELMHURST, NY 11370-3001, USA Owner Classification: Municipal

#### **Permit Contacts**

Division of Environmental Permits: Name: CAITLYN P NICHOLS Address: 1 HUNTERS POINT PLAZA 47-40 21ST ST LONG ISLAND CITY, NY 11101 Phone:

Division of Air Resources: Name: CICILY T NIRAPPEL Address: 1 HUNTERS POINT PLAZA 47-40 21ST ST LONG ISLAND CITY, NY 11101 Phone:7184824944

Air Permitting Contact: Name: CHRISTOPHER CLARKE Address: NYC DEPARTMENT OF CORRECTION 17-25 HAZEN ST EAST ELMHURST, NY 11370 Phone:7185461945

#### 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.

#### **Summary Description of Proposed Project**



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This is a Title V Permit renewal application for NYC DOC- Rikers Island. The applicant also proposes the following modifications:

1. NOx RACT variance limits for fourteen (14) of 19 (nineteen) engines which have the option to enroll in Demand Response Program with Con Edison. These engines are not able to meet 6 NYCRR Part 227-2 presumptive NOx RACT limit 2.3 grams/bhp-hr. The renewal application includes a NOx RACT analysis report dated March 2020, which is prepared in accordance with DEC Air guide 20 (DAR-20) and 6 NYCRR Part 227-2.5(c). After evaluating the feasible control technologies and strategies, the facility has demonstrated that Zero Control is the RACT for these sources. The facility estimated that the cost per ton of NOx removed in these units with added controls will be more than the DAR-20 economic feasibility cost threshold. The NOx RACT determinations for the engines will be submitted to EPA for approval as a single source SIP revision. These 19 engines will also operate as emergency generators. The total NOx emissions from these 19 engines continued to be limited to 22.5 tons per year.

To ensure compliance with 1-hr NO2 National Ambient Air Quality Standard (NAAQS), Rikers Island proposes to include only 10 (ten) of these engines in the Demand Response Program with operational load limit on each as determined through the NO2 1hr Air Dispersion Modeling analysis performed in March 2020. The other nine engines will be operating as emergency generators only until those are stack tested and demonstrated to be in compliance with NOx RACT and NAAQS.

2. NYC DOC- Rikers Island facility proposes to modify the permit conditions for their existing cogeneration units (two 7.5 MW combined cycle turbines with duct firing and heat recovery steam generators) which was permitted with Ren 1 Mod 2. Then the facility had netted out of 6 NYCRR 231-6 NSR major modification requirements by creating NOx and PM-10 Emission Reduction Credits (ERCs) from the existing eight boilers by limiting their emissions but, in the past years, the facility was not able to operate in that scenario. Therefore, in this renewal, the applicant proposes a New Source Review(NSR) major modification for these Cogen units as per 231-6.4 with a NOx limit of 52 tons per year. All other pollutants are in compliance with the Nonattainment NSR and PSD. This application includes a Lowest Achievable Emission Rate (LAER) analysis for the Cogen units and 67.6 tpy NOX ERCs to offset the NOx emissions, and a request to remove the NOx and PM-10 emission limits for eight boilers from the permit. The proposed LAER NOX limits for turbine are 12 ppmvd @15% O2 without duct firing, and 15 ppmvd @15% O2 with duct firing.



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#### **Attainment Status**

NYC-DOC - RIKERS ISLAND is located in the town of BRONX in the county of BRONX. 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.)

Criteria Pollutant	Attainment Status		
Particulate Matter (PM)	ATTAINMENT		
Particulate Matter< 10µ in diameter (PM10)	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:**

The New York City Department of Correction (NYC DOC) maintains a prison facility on Rikers Island in the East River, near both the boroughs of Queens and the Bronx. A powerhouse operates in a separate structure on the island, producing electric power for the entire island, as well as process steam for heating, hot water, and laundry. Facility also has spray booth for painting repaired parts of buses and vehicles for NYCDOC.

#### The Powerhouse has:

1. Eight boilers with a capacity of 96 mmbtu/hr each (listed in emission units U00001, U00002 and U00003) retrofitted with low NOx burners and utilizing natural gas as the primary fuel and #2 fuel oil as back up. The eight boilers exhaust through Emission Points U00001, U00002, and 00003.

2. Spray paint booth (listed in emission unit U00009) is in the garage where the vehicles are served. The spray booths are used for painting repaired parts of buses and vehicles for NYCDOC. The maximum annual emissions of VOC from the painting process are limited to 2.5 tons per year. The spray booth exhausts through Emission Point 00009.

3. Nineteen (19) internal combustion engines (listed in emission unit U00010). Ten (10) engines will participate in Demand Response Program with Con Edison, the local utility and the other nine(9) engines will operate as emergency generators. These nineteen (19) engines were permitted on 7/17/2007 and are subject to a NOx emission cap of 22.5 tons per year.

4. Two 7.5 MW natural gas-fired cogeneration turbines equipped with duct firing heat recovery steam



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generators (HRSGs) and one 1.5 MW emergency black start engine generator. The cogeneration plant is permitted under emission unit U00011. NOx emissions are capped at 52.00 tpy to comply with NANSR and PSD.

Rikers Island facility also has 51 emergency diesel engines scattered throughout Rikers Island for emergency support.

#### Permit Structure and Description of Operations

The Title V permit for NYC-DOC - RIKERS ISLAND

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.

NYC-DOC - RIKERS ISLAND is defined by the following emission unit(s):

Emission unit U00003 - This emission unit is comprised of one Keeler 96 mmbtu/hr boiler (primarily burn natural gas with #2 oil as back up), and one Union Iron Works boiler, each capable of producing 70,000 lb/hr of 150 psi steam. Each boiler is retrofitted with two low NOx burners. The two boilers discharge through a common stack.

Emission unit U00003 is associated with the following emission points (EP): U0003 Process: 005 is located at Building 14 - Boilers firing natural gas.

Process: 006 is located at Building 14 - Boilers firing #2 fuel oil as backup fuel during natural gas interruption.



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Emission unit U00011 - This emission unit is comprised of the cogeneration plant equipment, which includes two 7.5 MW natural gas-fired combined cycle combustion turbines equipped with duct firing heat recovery steam generators, and one 1500 KW emergency blackstart generator. Each turbine and the duct firing HRSG combination has an individual exhaust stack. The stack is approximately 150 feet high. The emergency blackstart generator is a 1500 KW generator that is used to kick-start the turbines in an emergency situation only.

Rikers Island purchased 67.6 tpy of NOx to offset the Cogeneration plant emissions of 52 tpy  $(52 \times 1.3 = 67.7)$ 

Emission unit U00011 is associated with the following emission points (EP): U0029, U0031, U0033 Process: 007 is located at Building 15 - Firing natural gas in the cogeneration plant

Process: 008 is located at Building 15 - Firing diesel in the emergency blackstart engine.

Emission unit U00010 - This Emission unit consists of nineteen (19) generators (four 1100 KW, two 800 KW, three 900KW, one 625 KW, and nine 1150 KW), which have the option of enrolling in Demand Response Program during the power peak seasons, but only ten (10) engines (emission sources 00010, 00011, 00012, 00013, 00014, 00015, 00020, 00022, 00024 & 00025) are permitted to participate in the Demand Response Program. Each engine has its own stack. In addition to regular testing, these 19 engines may also be operating during emergencies.

The total NOx emissions from this emission unit are limited to 22.5 tpy.

Fourteen (14) of these generators were stack tested in August and September 2018 which performed at above 2.3 gm/bhp-hr (the presumptive engine NOx RACT limit) and below 9.2 gm/bhp-hr. The emission factors used in calculating emissions are tested values (NOx only). For five (5) generators are not tested, the emission factor used is 9.2 gm/bhp-hr. Testing of these five generators (emission sources 00021, 00023, 00026, 00027 & 00028) will be performed later based on DEC's approval and will not participate in Demand Response Program until a variance/approval is sought and 1-hr NO2 dispersion modeling is approved.

A NOx RACT analysis and variance request for the fourteen (14) engines those did not meet NOx RACT limit 2.3gm/bhp is attached to the application. The facility also has performed an air dispersion modeling with 14 engines to demonstrate compliance with the 1-hr NO2 National Ambient Air Quality standard(NAAQS), and in order to avoid exceedances of the NAAQS 1-hr NO2 standard, only ten (10) emission sources (00010, 00011, 00012, 00013, 00014, 00015, 00020, 00022, 00024 & 00025) are permitted to participate in the Demand Response Program. In the future if the facility plans to operate the remaining four emission sources (00016, 00017, 00018, 00019) under Demand Response Program, the facility will perform 1-hr NO2 dispersion modeling to demonstrate compliance with the standards.

All these engines were manufactured between 1985-1988.

Emission unit U00010 is associated with the following emission points (EP): 00010, 00011, 00012, 00013, 00014, 00015, 00016, 00017, 00018, 00019, 00020, 00021, 00022, 00023,



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00024, 00025, 00026, 00027, 00028 Process: GEN is located at Ground - Engines firing number 2 diesel oil.

Emission unit U00009 - A spray paint booth has been installed in the garage for motor vehicle refinishing. The spray paint booth is used 4 hrs/day, 235 days/yr. Emission exhaust stack will be located above the roof of the garage.

Emission unit U00009 is associated with the following emission points (EP): 00009 Process: 00P is located at first, Building GARAGE - Paint spay booth operation.

Emission unit U00001 - This emission unit comprised of four Keeler 96 mmbtu/hr boilers (primarily burn natural gas with #2 oil as back up) each capable of producing 70,000 lb/hr of 150 psi steam. Each boiler is retrofitted with two low NOx burners. The four boilers discharge through a common stack(emission point U0001) and opacity is monitored using a continuous opacity monitoring system (COMS).

Emission unit U00001 is associated with the following emission points (EP): U0001

Process: 001 is located at Building 14 - Firing natural gas in each of the four boilers (00001-00004), each rated at 96 mmbtu/hr. Backup fuel (only during natural gas interruption) is #2 fuel oil.

Process: 002 is located at Building 14 - Boilers firing #2 fuel oil as a backup fuel in the boilers during natural gas interruption.

Emission unit U00002 - This emission unit is comprised of two Keeler 96 mmbtu/hr boilers (primarily burn natural gas with #2 oil as back up), each capable of producing 70,000 lb/hr of 150 psi steam. Each boiler is retrofitted with two low NOx burners. The two boilers discharge through a common stack.

Emission unit U00002 is associated with the following emission points (EP): U0002

Process: 003 is located at Building 14 - Boilers firing natural gas in each of the two boilers (00005 & 00006), each rated at 96 mmbtu/hr. Backup fuel (only during natural gas interruption) is #2 fuel oil.

Process: 004 is located at Building 14 - Boilers firing #2 fuel oil as backup fuel in the two boilers during natural gas interruption.

#### Title V/Major Source Status

NYC-DOC - RIKERS ISLAND is subject to Title V requirements. This determination is based on the following information:

NYC-DOC Rikers Island is a major facility since the potential emissions are greater than the major source thresholds, 25 tons per year for nitrogen oxides and volatile organic



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compounds, and 100 tpy for carbon monoxide.

## Program Applicability

The following chart summarizes the applicability of NYC-DOC - RIKERS ISLAND with regards to the principal air pollution regulatory programs:

Regulatory Program Applicability

PSD	NO	
NSR (non-attainment)	YES	
NESHAP (40 CFR Part 61)	NO	
NESHAP (MACT - 40 CFR Part 63)	YES	
NSPS	YES	
TITLE IV	NO	
TITLE V	YES	
TITLE VI	NO	
RACT	YES	
SIP	YES	

#### NOTES:

PSD Prevention of Significant Deterioration (40 CFR 52.21, 6 NYCRR 231-7, 231-8) - 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 231-5, 231-6) - 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, 6 NYCRR 200.10) - 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, 6 NYCRR 200.10) - 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, 6 NYCRR 200.10) - 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



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contaminant(s) listed in the regulation.

Title IV Acid Rain Control Program (40 CFR 72 thru 78, 6 NYCRR 201-6) - regulations which mandate the implementation of the acid rain control program for large stationary combustion facilities.

Title VI Stratospheric Ozone Protection (40 CFR 82, Subpart A thru G, 6 NYCRR 200.10) 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 212-3, 220-1.6, 220-1.7, 220-2.3, 220-2.4, 226, 227-2, 228, 229, 230, 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.

SIP State Implementation Plan (40 CFR 52, Subpart HH, 6 NYCRR 200.10) - 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 in compliance with all requirements.

# 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.

#### SIC Code

#### Description

5541	GASOLINE SERVICE STATIONS
7532	TOP AND BODY REPAIR AND PAINT SHOPS
9223	CORRECTIONAL INSTITUTIONS

# 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.

SCC Code	Description
1-03-005-02	EXTERNAL COMBUSTION BOILERS -



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	COMMERCIAL/INDUSTRIAL
	COMMERCIAL/INSTITUTIONAL BOILER -
	DISTILLATE OIL
	10-100MMBTU/HR **
1-03-006-02	EXTERNAL COMBUSTION BOILERS -
	COMMERCIAL/INDUSTRIAL
	COMMERCIAL/INSTITUTIONAL BOILER - NATURAL
	GAS
	10-100 MMBtu/Hr
2-02-004-01	INTERNAL COMBUSTION ENGINES - INDUSTRIAL
	INDUSTRIAL INTERNAL COMBUSTION LARGE BORE
	ENGINE
	Diesel
2-03-001-01	INTERNAL COMBUSTION ENGINES -
	COMMERCIAL/INSTITUTIONAL
	COMMERCIAL/INSTITUTIONAL IC ENGINE -
	DISTILLATE OIL (DIESEL)
	Reciprocating
2-03-002-03	INTERNAL COMBUSTION ENGINES -
	COMMERCIAL/INSTITUTIONAL
	COMMERCIAL/INSTITUTIONAL IC ENGINE -
	NATURAL GAS
	TURBINE: COGENERATION
4-02-001-10	SURFACE COATING OPERATIONS
	SURFACE COATING APPLICATION - GENERAL
	Paint: Solvent-Base

#### **Facility Emissions Summary**

In the following table, the CAS No. or Chemical Abstract Service 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 for each contaminant that is displayed represents the facility-wide PTE in tons per year (tpy) or pounds per year (lbs/yr). In some instances the PTE represents a federally enforceable emissions cap or limitation for that contaminant. 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.

<b>Cas No.</b> 000124-38-9	<b>Contaminant</b> CARBON DIOXIDE	PTE lbs/yr	<b>PTE tons/yr</b> 666872.9	Actual lbs/yr	Actual tons/yr
0NY750-00-0	CARBON DIOXIDE EQUIVALENTS		668883.6		
000630-08-0	CARBON MONOXIDE	689348			
007439-92-1	LEAD		0.022		
0NY210-00-0	OXIDES OF NITROGEN	956282			



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0NY075-00-0	PARTICULATES	120876	
0NY075-00-5	PM-10	120876	
007446-09-5	SULFUR	21820	
	DIOXIDE		
0NY100-00-0	TOTAL HAP		7.21
0NY998-00-0	VOC	50047	

# NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

Item A: Public Access to Recordkeeping for Title V Facilities - 6 NYCRR 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 6 NYCRR Part 616 - Public Access to records and Section 114(c) of the Act.

#### Item B: Timely Application for the Renewal of Title V Permits -6 NYCRR Part 201-6.2(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 C: Certification by a Responsible Official - 6 NYCRR Part 201-6.2(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 D: Requirement to Comply With All Conditions 6 NYCRR Part 201-6.4(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 E: Permit Revocation, Modification, Reopening, Reissuance or Termination, and Associated Information Submission Requirements - 6 NYCRR Part 201-6.4(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 F: Cessation or Reduction of Permitted Activity Not a Defense - 6 NYCRR 201-6.4(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.



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#### Item G: Property Rights - 6 NYCRR 201-6.4(a)(6) This permit does not convey any property rights of any sort or any exclusive privilege.

#### Item H: Severability - 6 NYCRR Part 201-6.4(a)(9) 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 I: Permit Shield - 6 NYCRR Part 201-6.4(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 J: Reopening for Cause - 6 NYCRR Part 201-6.4(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 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 2 01-6.7 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.



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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 K: 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 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 L: 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: Emergency Defense - 6 NYCRR 201-1.5

- An emergency, as defined by subpart 201-2, constitutes an affirmative defense to penalties sought in an enforcement action brought by the Department 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:



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 (1) An emergency occurred and that the facility owner 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 and maintained;
(3) During the period of the emergency the facility owner 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 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 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\_02

## Item B: 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**

Location Facility/EU/EP/Proc	Regulation cess/ES	Condition	Short Description
FACILITY	ECL 19-0301	82	Powers and Duties of the Department with respect to air pollution control
U-00001/U0001	40CFR 60-A.13	46	General provisions - Monitoring requirements
U-00001/U0001	40CFR 60-A.13(c)	47	General provisions - Monitoring requirements
FACILITY	40CFR 60-Dc.40c	37	Steam generators 10-



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			100 million Btu per
FACILITY	40CFR 60-Dc.48c(g)	38	hour Reporting and
FACILIII	40CFK 00-DC.48C(g)	56	Recordkeeping
			Requirements.
FACILITY	40CFR 60-IIII	39	Standards of
			Performance for
			Stationary Compression Ignition
			Internal Combustion
			Engines
U-00011	40CFR 60-IIII.4205(b)	75	Emission Standards -
			2007 or later Emergency Non Fire
			Pump Stationary CI-IC
			Engines Displacing <
			30 liters/cylinder
FACILITY	40CFR 60-KKKK	40	Stationary Combustion Turbine NSPS
U-00011	40CFR 60-KKKK.4340(a)	76	Stationary Combustion
0 00011	400111 00 mmm.4540(a)	, 0	Turbine NSPS -
			Continuous compliance
U-00011/-/007		0.0	with NOx limit
0-00011/-/00/	40CFR 60-KKKK.4365(a)	80	Stationary Combustion Turbine NSPS -
			Exemption from
			monitoring total
			sulfur content of
U-00011/-/007	40CFR 60-KKKK.4400(a)	81	fuel Stationary Combustion
0-00011/-/00/	400FR 00-RRR.4400(a)	01	Turbine NSPS -
			Performance test
			methods
U-00011	40CFR 60-KKKK.4400(b)	11	Stationary Combustion Turbine NSPS -
			Performance testing
			for NOx
FACILITY	40CFR 63-ZZZZ	41, 42	Reciprocating
			Internal Combustion Engine (RICE) NESHAP
FACILITY	40CFR 68	17	Chemical accident
			prevention provisions
FACILITY	40CFR 82-F	18	Protection of
			Stratospheric Ozone - recycling and
			emissions reduction
FACILITY	6NYCRR 200.6	1	Acceptable ambient
11 00010 / (CEN (00010	6NYCRR 200.6	5.2	air quality.
U-00010/-/GEN/00010	6NICRR 200.6	53	Acceptable ambient air quality.
U-00010/-/GEN/00011	6NYCRR 200.6	54	Acceptable ambient
			air quality.
U-00010/-/GEN/00012	6NYCRR 200.6	55	Acceptable ambient air quality.
U-00010/-/GEN/00013	6NYCRR 200.6	56	Acceptable ambient
, , . ,			air quality.
U-00010/-/GEN/00014	6NYCRR 200.6	57	Acceptable ambient
U-00010/-/GEN/00015	6NYCRR 200.6	58	air quality.
0 00010/-/GEN/00013	014101/1/ 200.0	50	Acceptable ambient air quality.
U-00010/-/GEN/00020	6NYCRR 200.6	59	Acceptable ambient
		<u></u>	air quality.
U-00010/-/GEN/00022	6NYCRR 200.6	60	Acceptable ambient air quality.
			are quarrey.



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U-00010/-/GEN/00024	6NYCRR 200.6	61	Acceptable ambient air quality.
U-00010/-/GEN/00025	6NYCRR 200.6	62	Acceptable ambient
FACILITY	6NYCRR 200.7	9	air quality. Maintenance of
FACILITY	6NYCRR 201-1.4	83	equipment. Unavoidable
			noncompliance and violations
FACILITY	6NYCRR 201-1.7	10	Recycling and Salvage
FACILITY	6NYCRR 201-1.8	11	Prohibition of reintroduction of
			collected
			contaminants to the air
FACILITY	6NYCRR 201-3.2(a)	12	Exempt Activities - Proof of eligibility
FACILITY	6NYCRR 201-3.3(a)	13	Trivial Activities - proof of eligibility
FACILITY	6NYCRR 201-6	19, 43, 44	Title V Permits and
			the Associated Permit Conditions
FACILITY	6NYCRR 201-6.4(a)(4)	14	General Conditions -
			Requirement to Provide Information
FACILITY	6NYCRR 201-6.4(a)(7)	2	General Conditions - Fees
FACILITY	6NYCRR 201-6.4(a)(8)	15	General Conditions -
FACILITY	6NYCRR 201-6.4(c)	3	Right to Inspect Recordkeeping and
			Reporting of Compliance Monitoring
FACILITY	6NYCRR 201-6.4(c)(2)	4	Records of
			Monitoring, Sampling and Measurement
FACILITY	6NYCRR 201-	5	Reporting
	6.4(c)(3)(ii		Requirements - Deviations and
FACILITY	6NYCRR 201-6.4(d)(4)	20	Noncompliance Compliance Schedules
			- Progress Reports
FACILITY	6NYCRR 201-6.4(e)	6	Compliance Certification
FACILITY	6NYCRR 201-6.4(f)	21	Operational Flexibility
FACILITY	6NYCRR 202-1.1	16	Required emissions
FACILITY	6NYCRR 202-1.2	22	tests. Notification.
FACILITY	6NYCRR 202-2.4(a)(3)	23	Emission statement methods and
		_	procedures
FACILITY	6NYCRR 202-2.5	7	Emission Statements - record keeping
FACILITY	6NYCRR 211.1	84	requirements. General Prohibitions
FACIBITI	UNICAR ZII.I	51	- air pollution
FACILITY	6NYCRR 211.2	24	prohibited General Prohibitions
			- visible emissions limited.
FACILITY	6NYCRR 215.2	8	Open Fires -
FACILITY	6NYCRR 225-1.2(d)	25	Prohibitions Sulfur-in-Fuel
			Limitation -



Distillate Oil

# Division of Air Resources Permit Review Report

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						Distillate Oil
FACILITY	6NYCRR	225-1.5(c)	26			Fuel Monitoring
FACILITY	6NYCRR	225-1.6(f)	27			Excess Emission
						Reports
FACILITY	6NYCRR	227-1.3(a)	28			Particulate Emission
111012111	0111 0111	22, 110 (0)	20			Standards
	CHIVODD	007 1 0 ( . )	~ ~			
FACILITY	6NYCRR	227-1.3(c)	29			Annual Tune-up
						Requirement
FACILITY	6NYCRR	227-1.4(a)	30,	31, 32	2	Opacity Standard
U-00001/U0001	6NYCRR	227-1.5(b)(2)	45			Excess Emissions &
						Monitoring System
						Reports
FACILITY	CNVCDD	227-2.5(a)	33,	2.4		Fuel switching
FACILIII	ONICKK	227-2.J(d)	55,	24		5
			0.5			option.
FACILITY	6NYCRR	227-2.5(c)	35			Alternative RACT
						option.
U-	6NYCRR	227-2.5(c)	63			Alternative RACT
00010/00010/GEN/00010						option.
U=	6NYCBR	227-2.5(c)	64			Alternative RACT
00010/00011/GEN/00011	01110101	227 2:3(0)	04			option.
	CHIVODD		<b>C F</b>			1
U-	6NYCRR	227-2.5(c)	65			Alternative RACT
00010/00012/GEN/00012						option.
U-	6NYCRR	227-2.5(c)	66			Alternative RACT
00010/00013/GEN/00013						option.
U-	6NYCRR	227-2.5(c)	67			Alternative RACT
00010/00014/GEN/00014	0111 0141	22, 2.0(0)	0.			option.
U-	GNVODD	227-2.5(c)	68			Alternative RACT
•	ONICRE	227=2.3(0)	00			
00010/00015/GEN/00015						option.
U-	6NYCRR	227-2.5(c)	69			Alternative RACT
00010/00020/GEN/00020						option.
U-	6NYCRR	227-2.5(c)	70			Alternative RACT
00010/00022/GEN/00022						option.
U-	GNVCDD	227-2.5(c)	71			Alternative RACT
00010/00024/GEN/00024	ONICINI	227 2.3(0)	/ 1			
						option.
U-	6NYCRR	227-2.5(c)	72			Alternative RACT
00010/00025/GEN/00025						option.
U-00009/00009	6NYCRR	228-1.3(a)	51			Surface Coating
						General Requirements-
						Opacity
U-00009/-/00P	GNVCDD	228-1.3(b)(1)	48			General Requirements
0-00009/-/00P	ONICRE	220=1.3(D)(1)	40			=
						- Record Keeping
U-00009/-/00P	6NYCRR	228-1.3(d)	49			Surface Coating
						General Requirements-
						Handling, storage and
						disposal
U-	6NYCBB	228-1.4(a)(2)	52			Table A - Class A VOC
00009/00009/00P/0000P	01110101	220 1.4(0)(2)	52			limits
	<i></i>					
U-00009/-/00P/0000P	6NYCRR	231-2	50			New Source Review in
						Nonattainment Areas
						and Ozone Transport
						Region
FACILITY	6NYCRR	231-2.4(a)(1)	36			Permit Requirements
U-00011		231-6.4	73			Permit content and
0 00011	ONICKK	201 0.7	10			
						terms of issuance
U-00011/-/007	6NYCRR	231-6.5	78,	79		Lowest achievable
						emission rate, LAER
U-00011	6NYCRR	231-6.6	74			Emission offset
						requirements

# **Applicability Discussion:**

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



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#### ECL 19-0301

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.

#### 6 NYCRR 200.6

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

# 6 NYCRR 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

#### 6 NYCRR 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.

#### 6 NYCRR 201-1.7

Requires the recycle and salvage of collected air contaminants where practical

#### 6 NYCRR 201-1.8

Prohibits the reintroduction of collected air contaminants to the outside air

# 6 NYCRR 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.

#### 6 NYCRR 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.

#### 6 NYCRR Subpart 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.



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#### 6 NYCRR 201-6.4 (a) (4)

This mandatory requirement applies to all Title V facilities. It requires the permittee to provide information that the Department may request in writing, within a reasonable time, in order to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. The request may include copies of records required to be kept by the permit.

#### 6 NYCRR 201-6.4 (a) (7)

This is a mandatory condition that requires the owner or operator of a facility subject to Title V requirements to pay all applicable fees associated with the emissions from their facility.

#### 6 NYCRR 201-6.4 (a) (8)

This is a mandatory condition for all facilities subject to Title V requirements. It allows the Department to inspect the facility to determine compliance with this permit, including copying records, sampling and monitoring, as necessary.

#### 6 NYCRR 201-6.4 (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.

# 6 NYCRR 201-6.4 (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.

#### 6 NYCRR 201-6.4 (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.

#### 6 NYCRR 201-6.4 (d) (4)

This condition applies to every Title V facility subject to a compliance schedule. It requires that reports, detailing the status of progress on achieving compliance with emission standards, be submitted semiannually.

#### 6 NYCRR 201-6.4 (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.

## 6 NYCRR 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.



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#### 6 NYCRR 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.

#### 6 NYCRR 211.2

This regulation limits opacity from sources to less than or equal to 20 percent (six minute average) except for one continuous six-minute period per hour of not more than 57 percent opacity.

#### 6 NYCRR 215.2

Except as allowed by section 215.3 of 6 NYCRR Part 215, no person shall burn, cause, suffer, allow or permit the burning of any materials in an open fire.

## 40 CFR Part 68

This Part lists the regulated substances and there 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 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, NYC-DOC - RIKERS ISLAND has been determined to be subject to the following regulations:

#### 40 CFR 60.13

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.

#### 40 CFR 60.13 (c)

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.

#### 40 CFR 60.40c

This regulation requires the source owner or operator to comply with the applicable General Provisions of 40 CFR 60 Subpart Dc. The facility owner is responsible for reviewing these general provisions in detail and complying with all applicable technical, administrative and reporting requirements.

#### 40 CFR 60.4205 (b)

This requirement applies to owners and operators of 2007 model year and later emergency stationary CI IC engines with a displacement less than 30 liters/cylinder that are not fire pump engines. An applicable



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source must comply with the emission standards for new nonroad CI engines for all pollutants (HC, PM, NOx, NMHC + NOx and CO) for the same model year and maximum engine power as per 40 CFR 60.4202.

40 CFR 60.4340 (a) This condition specifies NOx annual testing requirement for turbines.

40 CFR 60.4365 (a)

This section provides an exemption from monitoring total sulfur content of the fuel used by a facility.

40 CFR 60.4400 (a)

This condition specifies initial and subsequent NOx testing requirements.

40 CFR 60.4400 (b) This condition specifies NOx performance testing requirements.

40 CFR 60.48c (g)

The owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each day.

40 CFR Part 60, Subpart IIII

Subpart IIII applies to new and reconstructed compression ignition reciprocating internal combustion engines. Sources subject to Subpart IIII must comply with emission standards for hydrocarbons, nitrogen oxides, carbon monoxide, and particulate matter.

# 40 CFR Part 60, Subpart KKKK

Subpart KKKK applies to stationary combustion turbines with a heat input capacity greater than 10 million British thermal units per hour which commenced construction, modification, or reconstruction after February 18, 2005. Sources subject to Subpart KKKK must comply with emission standards for nitrogen oxides and sulfur dioxide.

40 CFR Part 63, Subpart ZZZZ

Subpart ZZZZ applies to reciprocating internal combustion engines. Sources subject to Subpart ZZZZ



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must limit emissions of carbon monoxide and formaldehyde. Sources must also comply with work practice standards and operating limits.

# 6 NYCRR 201-6.4 (f)

This section describes the potential for certain operational changes to be made by the facility owner or operator without first obtaining a permit modification. Changes made pursuant to this provision must meet all of the criteria described in this section to qualify for consideration as operational flexibility. The Department reserves the right to require the facility owner or operator to obtain a permit modification prior to making any changes at the facility pursuant to this section.

#### 6 NYCRR 202-1.2

This regulation specifies that the department is to be notified at least 30 days in advance of any required stack test. The notification is to include a list of the procedures to be used that are acceptable to the department. Finally, free access to observe the stack test is to be provided to the department's representative.

#### 6 NYCRR 202-2.4 (a) (3)

Once a facility is required to submit annual emission statements electronically, emission statements must be submitted to the department per the specified schedule, in this regulation beginning the reporting year that a Title V permit containing a condition mandating electronic submittal is issued.

#### 6 NYCRR 211.1

This regulation requires that no person shall cause or allow emissions of air contaminants to the outdoor atmosphere of such quantity, characteristic or duration which are injurious to human, plant or animal life or to property, or which unreasonably interfere with the comfortable enjoyment of life or property.

# <u>6 NYCRR 225-1.2 (d)</u>

This subdivision sets the sulfur-in-fuel limitation for distillate oil fired emission sources throughout the State.

# <u>6 NYCRR 225-1.5 (c)</u>

This subdivision requires specific measurements of the fuel fired at a facility that employs a CEM.

# <u>6 NYCRR 225-1.6 (f)</u>

This subdivision requires the submission of excess emission reports when the the sulfurin-fuel limitation, equivalent emission rate, or measured emissions exceeds the



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allowable standard.

# <u>6 NYCRR 227-1.3 (a)</u>

This subdivision sets the particulate matter emission standards for subject stationary combustion installations.

# <u>6 NYCRR 227-1.3 (c)</u>

This subdivision requires that all stationary combustion installations subject to this subpart perform an annual tune-up.

#### 6 NYCRR 227-1.4 (a)

This subdivisions sets the opacity standard for subject stationary combustion installations.

# 6 NYCRR 227-1.5 (b) (2)

This paragraph contains the excess emissions and monitoring system reporting requirements for emission sources required to utilize a continuous opacity monitor.

# <u>6 NYCRR 227-2.5 (a)</u>

Fuel switching NOx RACT compliance option.

# <u>6 NYCRR 227-2.5 (c)</u>

This provision allows the owner or operator to demonstrate that the applicable presumptive RACT emission limit in section 227-2.4 of this Subpart is not economically or technically feasible. Based on this determination the Department is allowed to set a higher emission source specific emission limit.

#### <u>6 NYCRR 228-1.3 (a)</u>

This citation prohibits owners or operators of emission sources from allowing emissions to the outdoor atmosphere, which reduce the visibility through the atmosphere by 20 percent or greater for any consecutive six-minute period.



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# 6 NYCRR 228-1.3 (b) (1)

This regulation requires the facility owner or operator to maintain a certification from the coating manufacturer that contains the information used to determine the as-applied volatile organic compound content of the coating. In addition, the facility owner or operator is required to maintain records of other information used to determine compliance with Part 228-1.

# 6 NYCRR 228-1.3 (d)

This citation directs the owners or operators of coating operations to minimize the emissions of volatile organic compounds to the atmosphere by properly handling, storing and disposing of coatings containing volatile organic compounds.

# 6 NYCRR 228-1.4 (a) (2)

# 6 NYCRR 231-2.4 (a) (1)

The provisions of Subpart 231-2 apply to new or modified major facilities. The contaminants of concern state-wide are nitrogen oxides and volatile organic compounds since New York State is located in the ozone transport region and because there are ozone non-attainment areas within the state. In the New York City metropolitan area, carbon monoxide is also a non-attainment contaminant. In addition, particulate matter less than 10 microns in size (PM-10) is a non-attainment contaminant in Manhattan County.

The permitting requirements for proposed source projects and new major facilities are set forth in section 231-2.4.

# 6 NYCRR 231-6.4

This section states what an applicant's permit must and will contain for conditions.

# 6 NYCRR 231-6.5

This section outlines what LAER is and how it is determined.

# 6 NYCRR 231-6.6

This section states what the emission offset requirements are for a facility subject to this Subpart.



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# 6 NYCRR Subpart 231-2

The provisions of Subpart 231-2 apply to new or modified major facilities. The contaminants of concern state-wide are nitrogen oxides and volatile organic compounds since New York State is located in the ozone transport region and because there are ozone non-attainment areas within the state. In addition, particulate matter less than 10 microns in size (PM-10) is a non-attainment contaminant in Manhattan County.

# Compliance Certification Summary of monitoring activities at NYC-DOC - RIKERS ISLAND:

Location Facility/EU/EP/Process/ES	Cond I	No. Type of Monitoring
u-00001/u0001	47	record keeping/maintenance procedures
FACILITY	38	record keeping/maintenance procedures
U-00011	75	record keeping/maintenance procedures
U-00011	76	record keeping/maintenance procedures
U-00011/-/007	80	record keeping/maintenance procedures
U-00010/-/GEN/00010	53	monitoring of process or control device parameters as surrogate
U-00010/-/GEN/00011	54	monitoring of process or control device parameters as surrogate
U-00010/-/GEN/00012	55	monitoring of process or control device parameters as surrogate
U-00010/-/GEN/00013	56	monitoring of process or control device parameters as surrogate
U-00010/-/GEN/00014	57	monitoring of process or control device parameters as surrogate
U-00010/-/GEN/00015	58	monitoring of process or control device parameters as surrogate
U-00010/-/GEN/00020	59	monitoring of process or control device parameters as surrogate
U-00010/-/GEN/00022	60	monitoring of process or control device parameters as surrogate
U-00010/-/GEN/00024	61	monitoring of process or control device parameters as surrogate
U-00010/-/GEN/00025	62	monitoring of process or control device parameters as surrogate
FACILITY	5	record keeping/maintenance procedures
FACILITY	6	record keeping/maintenance procedures
FACILITY	25	work practice involving specific operations
FACILITY	26	record keeping/maintenance procedures
FACILITY	27	record keeping/maintenance procedures
FACILITY	28	record keeping/maintenance procedures
FACILITY	29	record keeping/maintenance procedures
FACILITY	30	monitoring of process or control device parameters as surrogate
FACILITY	31	monitoring of process or control device parameters as surrogate
FACILITY	32	record keeping/maintenance procedures
U-00001/U0001	45	record keeping/maintenance procedures
FACILITY	33	record keeping/maintenance procedures
FACILITY	34	intermittent emission testing
FACILITY	35	work practice involving specific operations
U-00010/00010/GEN/00010	63	intermittent emission testing



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U-00010/00011/GEN/00011 U-00010/00012/GEN/00012 U-00010/00013/GEN/00013 U-00010/00014/GEN/00014 U-00010/00015/GEN/00015	64 65 66 67 68	intermittent emission testing intermittent emission testing intermittent emission testing intermittent emission testing intermittent emission testing
U-00010/00020/GEN/00020	69	intermittent emission testing
U-00010/00022/GEN/00022	70	intermittent emission testing
U-00010/00024/GEN/00024	71	intermittent emission testing
U-00010/00025/GEN/00025	72	intermittent emission testing
U-00009/00009	51	monitoring of process or control device parameters
		as surrogate
U-00009/-/00P	48	record keeping/maintenance procedures
U-00009/-/00P	49	record keeping/maintenance procedures
U-00009/00009/00P/0000P	52	record keeping/maintenance procedures
U-00009/-/00P/0000P	50	work practice involving specific operations
FACILITY	36	monitoring of process or control device parameters as surrogate
U-00011	73	monitoring of process or control device parameters as surrogate
U-00011/-/007	78	intermittent emission testing
U-00011/-/007	79	intermittent emission testing
U-00011	74	record keeping/maintenance procedures

#### **Basis for Monitoring**

Rikers Island facility is subject to the following monitoring conditions for each regulation listed below:

6 NYCRR Part 225-1.2(d): This condition limits the sulfur content of No.2 oil used at the facility to 0.0015 %by weight and requires the facility to verify the compliance through vendor receipt on each delivery. This will also ensure Part 227-1.3 PM limit, 0.1lbs/mmbtu.

6 NYCRR Part 227-1.4(a): These conditions set forth the opacity limits for combustion sources which do not have COMS installed. The conditions require daily opacity observation of stacks during oil firing and annual Method 9 opacity monitoring during gas firing.

For emission unit U-00001, the opacity will be measured using continuous opacity monitoring system since the combined heat input to the stack is greater than 250 mmbtu/hr.

#### Emission units U-00001, U-00002 and U-00003

6 NYCRR Part 227-2.5(a) - The eight midsize boilers in these emission units capable of burning distillate oil and natural gas are not able to meet the NOx RACT limit 0.08 lb/mmbtu while burning oil. The facility proposed to meet the NOx RACT limit by choosing the fuel switching option, where the facility commits to burn cleaner fuel, natural gas, during the ozone season. The condition requires the facility to perform boiler NOx emission tests once every five years while firing oil and gas and use these emission rates to calculate and demonstrate that the annual average NOx emission rate does not exceed 0.08 lb/mmbtu.

These boilers fire oil only during natural gas interruption or gas curtailment and meet the definition of gasfired boilers per 40 CRFR 63.11237. Therefore, these boilers are exempt from 40 CFR 63 JJJJJJ permit requirements.

#### Emission Unit U-00009

6 NYCRR Part 231-2: The 12-month rolling total VOC emissions of spray booth's listed in emission unit is limited to 2.49 tpy, which is less than the significant source project threshold 2.5 tpy. The facility is required to track and record VOC emissions monthly to ensure compliance.



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Emission Unit U-00010

6 NYCRR Part 227-2.5(c): These conditions set limits for 10 (of 19) engines which are enrolled to participate in the Demand Response Program.

These engines are not able to meet 6 NYCRR Part 227-2 presumptive NOx RACT limit 2.3 gram/bhp-hr. Therefore, Rikers Island requested NOx RACT variance limits for their fourteen(14)) engines under the provisions of 6 NYCRR Part 227-2.5(c). The application includes a NOx RACT analysis report (dated March 2020) which is prepared in accordance with DEC Air guide 20 (DAR-20). After evaluating the feasible control technologies and strategies, the facility has demonstrated that zero control is the RACT for these sources. The facility estimated that the cost per ton of NOx removed in these units with added controls will be more than the DAR-20 economic feasibility cost threshold \$5300/tons. But Rikers Island will include only 10 of these engines in the Demand Response program as determined through the February 2021 NO2 1-hr Air Dispersion Modeling analysis so that the facility is in compliance with the National ambient air quality standard (NAAQS). The Department has approved the proposed alternative RACT emission limits for ten engines and will be submitted to USEPA for approval as a revision to the State Implementation Plan. The other engines will be allowed to participate in the Demand Response program only after demonstrating compliance with the NOx RACT and the National ambient air quality standard(NAAQS) with a permit modification request. The 227-2.5(c) conditions require the facility to demonstrate compliance with the alternate NOx RACT limits for ten engines by performing stack test once every five years.

NYPART 200.6: 10 of 19 engines in Emission unit 00010 are permitted to operate in the Demand Response Program. The facility demonstrated compliance with the 1-hr NO2 NAAQS in the February 2021 dispersion modeling report with only 10 of 19 engines. While operating in Demand Response Program, the maximum capacities of each of these 10 engines are limited to certain KW so that those will be complying NAAQS. The facility is required to track and record kilowatt outputs while the engines are operating in the Demand Response Program, and all the records are to be kept at the facility for a minimum period of five years.

6 NYCRR Part 231-2: This condition limits the NOx emissions from 19 engines (Demand Response Program operation and emergency operation) in emission unit U-00010 to 22.5 tpy, which is less than the significant net emission increase threshold 25 tpy for a 231 major modification. The permit condition requires the facility to calculate NOx emissions using operation hours and the most recent stack tested emission rates for each engine or approved emission rates.

#### Emission unit U-00011

In this application, Rikers proposed to modify their permit conditions for their existing cogeneration units (two 7.5 MW combined cycle turbines with duct firing and heat recovery steam generators) and mid-size boilers (in emission units U00001-U00003) which were permitted on 2/22/2011. The facility had previously netted out cogeneration units' NOx and VOC emissions by netting out, and accepted emission limits on boilers and Cogen plant. The facility requested to remove the emission limitations on the boilers and modify the Cogen emission limits. Rikers has proposed NSR conditions for a major modification. The facility has purchased 67.6 tpy of NOx ERCs for 52 tpy of NOx for the cogeneration units. This permit application also includes a LAER analysis which demonstrates that each Cogen turbine is equipped with the SoLo NOx technology is the Lowest Achievable Emission Rate (LAER) technology it can have.

NYCRR Part 231-6.4: This condition limits the annual NOx emission from cogeneration units. The Rikers has applied for a NSR major modification as per 231-6.4 with a NOx limit of 52 tons per year.



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All other pollutants are in compliance with the NANSR and PSD. This application includes a LAER analysis for the Cogeneration turbines and 67.6 tpy of NOx of ERCs to offset NOx emissions along with the request to remove the existing boiler NOx emission limits from the permit.

# NYCRR Part 231-6.5 NOx LAER limits

These two conditions require the Cogen. unit to limit turbine NOx emissions to12ppmvd corrected to15%O2 without duct firing and to 15 ppmvd corrected 15 % O2 with duct firing.

The turbines are subject to NSPS 40 CFR 60 KKKK NOx and sulfur limiting requirements. This permit requires more stringent limits and therefore, the NSPS limits are not included in this permit, but the testing for NOx is required every year as per the NSPS requirements.

60 CFR Subpart Dc: The eight mid-size boilers are subject to the PM and SO2 requirements of this Subpart which are satisfied by NYCRR Part 227-1.3(a) and 225-1.2(d) conditions in this permit.

CLCPA

Rikers Island submitted a CLCPA analysis which demonstrates that the application is in consistent with sections 7(2) and 7(3) of Climate Leadership and Community Protection Act (CLCPA).