



*Environmental and Planning Consultants*

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September 16, 2010

Ms. Elizabeth Clarke  
Permit Administrator  
New York State Department of Environmental Conservation  
Division of Environmental Permits, Region 2  
1 Hunters Point Plaza  
47-40 21st Street  
Long Island City, NY 11101-5407

Re: Rikers Island Cogeneration  
Application for Title V Permit Modification  
Facility ID #: 2-6007-00259

Dear Ms. Clarke:

AKRF, on behalf of New York City Department of Correction (NYCDOC), is submitting this revised application for a Title V permit modification for a new cogeneration plant at the Rikers Island Correctional Facility. The proposed cogeneration project is concurrently undergoing an environmental quality review under SEQR, with the New York Power Authority (NYPA) as the lead agency. An environmental assessment (EA) has been prepared and was submitted on April 14, 2010. An initial Title V permit modification was submitted on March 25, 2010, and a Notice of Incomplete Application was received on June 28, 2010. This Title V permit modification submittal replaces the previous submittal since the structure of the forms, regulatory analysis, and backup emission calculations have all been revised.

The cogeneration plant will consist of two new 7.5 MW natural gas fired simple cycle gas combustion turbines (CTGs) equipped with duct firing heat recovery steam generators (HRSGs) as an additional reliable on-site source of power generation to reduce the need for utility power to a minimum. The turbines would be housed in a new building approximately 43 feet in height. Each turbine would have two exhaust stacks, a main stack for the exhaust from the duct firing HRSGs, and a bypass stack for the exhaust from the turbine only. During warm weather months when there is not a large steam demand for heating, some of the exhaust gas from the turbines may bypass the duct burners and the HRSGs and exhaust through the bypass stack. The main stacks would be approximately 150 feet above grade and the bypass stacks would be approximately 100 feet above grade. Natural gas will be the sole fuel burned.

There is an existing powerhouse which houses eight boilers with a capacity of 96 mmbtu/hr each, firing natural gas or distillate oil as back up. The eight boilers are retrofitted to meet the requirements of Clean Air Act Amendments of 1990. The facility replaced the burners with low NOx burners, utilizing natural gas as the primary fuel and #2 fuel oil as back up. The eight boilers exhaust through emission points U00001, U00002, and U00003. Under 2-6007-00259/00033 modification 2, the facility proposed and was issued a permit to remove the continuous opacity monitoring requirements at emission points U0002 and U0003, since the combined heat input to these emission points are less than 250 mmbtu/hr. The facility

monitors the opacity for these emission points using a visible emission method. The facility also operates a spray paint booth (U00009), which is located in the garage where the vehicles are served. The spray booth is used for painting repaired parts of buses and vehicles for the Department of Correction. The maximum annual emissions of VOC from the painting process are limited to 2.5 tons per year. The facility also operates nineteen (19) internal combustion engines in a Peak Load Management (PLM) program with Con Edison, the local utility (U00010). These engines, permitted on 7/17/2007, are subject to a NOx emission cap of 22.5 tons per year. Fifteen of the nineteen engines are permitted to operate under NOx RACT variance emission limits. The contemporaneous period for this modification ends on 7/17/2012.

This permit modification is for the installation of a new cogeneration plant, consisting of two 7.5 MW natural gas-fired simple cycle gas turbines equipped with duct firing heat recovery steam generators (HRSGs).

The cogeneration plant is being permitted under new Emission Unit U00011. NOx and PM<sub>10</sub> emissions are proposed to be capped at 42.00 tpy and 15.77 tpy, respectively in order to avoid non-attainment New Source Review (NANSR) and Prevention of Significant Deterioration (PSD) applicability. Relative to VOC and PM<sub>2.5</sub>, total emissions are less than 25 tpy and 100 tpy, respectively; therefore, NANSR is not applicable to these pollutants. Under 231-6.2(c)(1), the facility is accepting a permit condition prohibiting the proposed cogeneration plant from commencing operation until after the close of the contemporaneous period for the PLM units, which is 7/17/2012. The proposed cogeneration plant will not commence operation until after 7/17/2012.

In addition, the facility is curtailing operations of the eight existing boilers (emission sources 0001, 0002, 0003, 0004, 0005, 0006, 0007, and 0008). For U00001, NOx and PM<sub>10</sub> emissions are proposed to be capped at 8.00 tpy and 1.10 tpy, respectively. For U00002, NOx and PM<sub>10</sub> emissions are proposed to be capped at 2.00 tpy and 0.28 tpy, respectively. For U00003, NOx and PM<sub>10</sub> emissions are proposed to be capped at 1.00 tpy and 0.14 tpy, respectively. Emission reduction credits are being applied for and used in the 231-6.2 and 231-8.2 netting analyses for the proposed cogeneration plant. The netting analyses show that the net emissions increase for NOx and PM<sub>10</sub> are below the significant net emission increase thresholds of 25 tpy and 15 tpy for NOx and PM<sub>10</sub>, respectively.

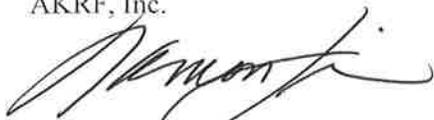
In summary, the facility will operate in full compliance with all applicable federal, state and local air quality regulations and standards, including PSD, NANSR, New Source Performance Standards (NSPS), and NOx Reasonably Available Control Technology (RACT). The facility proposes to track annual NOx and PM<sub>10</sub> emissions from the cogeneration facility and from the boilers based on stack testing and fuel usage. These monitoring, recordkeeping and recording procedures and data are provided in the emission unit compliance plan section.

The cogeneration equipment to be specified has a very high reliability and one or more of the turbines is expected to run on a continual basis. Thus, inasmuch as the NOx emissions from the new gas turbines and heat recovery steam generators are significantly lower than either the existing boilers or the PLM generator units, it is anticipated that the total emissions from the new cogeneration facility will be significantly lower than the maximum allowable permitted emissions for the current facility.

No changes are being made to existing emission units U00009 and U00010.

We appreciate your attention to this project. Please call me at 646-388-9724 with any questions or concerns.

Sincerely,  
AKRF, Inc.

A handwritten signature in black ink, appearing to read 'Ramon Li', written in a cursive style.

Ramon Li, P.E.  
Technical Director

cc: Sam Lieblich, P.E. NYSDEC  
Rich Fram, NYSDEC  
Cicily Nirappel, NYSDEC  
Randall Solomon, NYPA  
Ed Holman, NYPA (without attachments)  
Sobeida Cruz, NYPA (without attachments)  
Nicholas Rella, NYPA  
Michael Gillespie, AECOM  
File

**New York City  
Department of Correction  
Rikers Island**

**Title V Air Permit Modification  
Application  
September, 2010**

Prepared for:  
New York State  
Department of Environmental Conservation  
Region Two  
Long Island City, New York

Prepared by:



440 Park Avenue South, 7th Floor  
New York, New York 10016

# New York State Department of Environmental Conservation Air Permit Application



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## P.E. Certification

I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments as they pertain to the practice of engineering. This is defined as the performance of a professional service such as consultation, investigation, evaluation, planning, design or supervision of construction or operation in connection with any utilities, structures, buildings, machines, equipment, processes, works, or projects wherein the safeguarding of life, health and property is concerned, when such service or work requires the application of engineering principals and data. Based on my inquiry of those individuals with primary responsibility for obtaining such information, I certify that the statements and information are to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name of P.E.

Ramon Li, P.E.

Signature of P.E.



Date

09, 16, 10

NYS License No.

060857

Phone ( 646 ) 388-9724

# **Title V Permit Modification Forms**

**New York State Department of Environmental Conservation  
Air Permit Application**



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**Section I - Certification**

Title V Certification	
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information [required pursuant to 6 NYCRR 201-6.3(d)] I believe the information is, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.	
Responsible Official <u>Gregory McLaughlin</u>	Title <u>Warden/Support Services Division</u>
Signature <u>[Handwritten Signature]</u>	Date <u>9/14/10</u>

State Facility Certification	
I certify that this facility will be operated in conformance with all provisions of existing regulations.	
Responsible Official	Title
Signature	Date <u>    /    /    </u>

**Section II - Identification Information**

<input type="checkbox"/> Title V Facility Permit <input type="checkbox"/> New <input checked="" type="checkbox"/> Significant Modification <input type="checkbox"/> Administrative Amendment <input type="checkbox"/> Renewal <input type="checkbox"/> Minor Modification    General Permit Title: _____	<input type="checkbox"/> State Facility Permit <input type="checkbox"/> New <input type="checkbox"/> Modification <input type="checkbox"/> General Permit Title: _____
<input type="checkbox"/> Application involves construction of new facility	<input type="checkbox"/> Application involves construction of new emission unit(s)

Owner/Firm			
Name <u>NYC Department of Correction</u>			
Street Address <u>60 Hudson Street, Room 719</u>			
City <u>New York</u>	State <u>NY</u>	Country <u>USA</u>	Zip <u>10013-3001</u>
Owner Classification	<input type="checkbox"/> Federal <input type="checkbox"/> Corporation/Partnership	<input checked="" type="checkbox"/> State <input type="checkbox"/> Individual	<input type="checkbox"/> Municipal
			Taxpayer ID <u>136400434</u>
Facility <input type="checkbox"/> Confidential			
Name <u>NYC-DOC - Rikers Island</u>			
Location Address <u>17-25 Hazen Street</u>			
<input checked="" type="checkbox"/> City / <input type="checkbox"/> Town / <input type="checkbox"/> Village <u>East Elmhurst, NY</u>		Zip <u>11370</u>	
Project Description <input type="checkbox"/> Continuation Sheet(s)			
<p>The New York City Department of Correction (NYCDOC) is seeking to construct two new 7.5 MW natural gas-fired simple cycle gas combustion turbines (CTGs) equipped with duct firing heat recovery steam generators (HRSGs) as an additional and reliable on-site source of power generation to reduce the need for off-site power to a minimum. The turbines would be housed in a new building approximately 39.5 feet in height. Each turbine would have two exhaust stacks, a main stack for the exhaust from the duct firing HRSGs, and a bypass stack for the exhaust from the turbine only. During warm weather months when there is not a large steam demand for heating, some of the exhaust gas from the turbines may bypass the duct burners and the HRSGs and exhaust through the bypass stack. The main stacks would be approximately 150 feet above grade and the bypass stacks would be approximately 100 feet above grade. Natural gas will be the sole fuel burned. An Environmental Assessment Statement (EAS) for the proposed project has also been submitted.</p>			

Owner/Firm Contact Mailing Address			
Name (Last, First, Middle Initial) <u>Gregory McLaughlin</u>		Phone No. <u>(718) 546-1429</u>	
Affiliation <u>NYC Department of Correction, Support Services Division</u>	Title <u>Warden/Support Services Division</u>	Fax No. ( ) _____	
Street Address <u>13-11 Hazen Street</u>			
City <u>East Elmhurst</u>	State <u>NY</u>	Country <u>USA</u>	Zip <u>11370</u>

New York State Department of Environmental Conservation  
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Facility Contact Mailing Address					
Name (Last, First, Middle Initial)	Pierre, Curtis				Phone No. (718) 546-1488
Affiliation	NYC-DOC Support Services Division	Title	Fax No. ()		
Street Address	17-25 Hazen Street				
City	East Elmhurst	State	NY	Country	USA
				Zip	11370

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## Section III - Facility Information

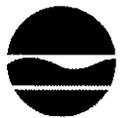
Classification					
<input type="checkbox"/> Hospital	<input type="checkbox"/> Residential	<input checked="" type="checkbox"/> Educational/Institutional	<input type="checkbox"/> Commercial	<input type="checkbox"/> Industrial	<input type="checkbox"/> Utility

Affected States (Title V Only)					
<input type="checkbox"/> Vermont	<input type="checkbox"/> Massachusetts	<input type="checkbox"/> Rhode Island	<input type="checkbox"/> Pennsylvania	Tribal Land: _____	
<input type="checkbox"/> New Hampshire	<input checked="" type="checkbox"/> Connecticut	<input checked="" type="checkbox"/> New Jersey	<input type="checkbox"/> Ohio	Tribal Land: _____	

SIC Codes									
9223	7532								

Facility Description		<input type="checkbox"/> Continuation Sheet(s)
<p>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 steam to provide heat for the entire island, as well as process steam for the laundry. The powerhouse has eight boilers with a capacity of 96 mmbtu/hr each, firing natural gas or distillate oil as back up. The eight boilers were retrofitted with low NOx burners, utilizing natural gas as the primary fuel and #2 fuel oil as back up. The eight boilers exhaust through emission points U00001, U00002, and U00003. Under 2-6007-00259/00033 modification 2, the facility proposed and was issued a permit to remove the continuous opacity monitoring requirements at emission points U0002 and U0003, since the combined heat input to these emission points are less than 250 mmbtu/hr. The facility monitors the opacity for these emission points using a visible emission method. The facility also operates a spray paint booth (U00009), which is located in the garage where the vehicles are served. The spray booth is used for painting repaired parts of buses and vehicles for the DOC. The maximum annual emissions of VOC from the painting process are limited to 2.5 tons per year. The facility also operates nineteen (19) internal combustion engines in a Peak Load Management (PLM) program with Con Edison, the local utility (U00010). These engines, permitted on 7/17/2007, are subject to a NOx emission cap of 22.5 tons per year. Fifteen of the nineteen engines are permitted to operate under NOx RACT variance emission limits.</p> <p>This permit modification is for the installation of a new cogeneration plant, consisting of two 7.5 MW natural gas-fired simple cycle gas turbines equipped with duct firing heat recovery steam generators (HRSGs). The cogeneration plant is being permitted under new Emission Unit U00011. NOx and PM<sub>10</sub> emissions are proposed to be capped at 42.00 tpy and 15.77 tpy, respectively in order to avoid NANSR and PSD applicability. Relative to VOC and PM<sub>2.5</sub>, total emissions are less than 25 tpy and 100 tpy, respectively; therefore, NANSR is not applicable to these pollutants. Under 231-6.2(c)(1), the facility is accepting a permit condition prohibiting the proposed cogeneration plant from commencing operation until after the close of the contemporaneous period for the PLM units, which is 7/17/2012. The proposed cogeneration plant will not commence operation until after 7/17/2012.</p> <p>In addition, the facility is curtailing operations of the eight existing boilers (emission sources 0001, 0002, 0003, 0004, 0005, 0006, 0007, and 0008). For U00001, NOx and PM<sub>10</sub> emissions are proposed to be capped at 8.00 tpy and 1.10 tpy, respectively. For U00002, NOx and PM<sub>10</sub> emissions are proposed to be capped at 2.00 tpy and 0.28 tpy, respectively. For U00003, NOx and PM<sub>10</sub> emissions are proposed to be capped at 1.00 tpy and 0.14 tpy, respectively. Emission reduction credits are being applied for and used in the 231-6.2 and 231-8.2 netting analyses for the proposed cogeneration plant. The netting analyses show that the net emissions increase for NOx and PM<sub>10</sub> are below the significant net emission increase thresholds of 25 tpy and 15 tpy for NOx and PM<sub>10</sub>, respectively.</p> <p>In summary, the facility will operate in full compliance with all applicable federal, state and local air quality regulations and standards, including PSD, NANSR, New Source Performance Standards (NSPS), and NOx Reasonably Available Control Technology (RACT). The facility proposes to track annual NOx and PM<sub>10</sub> emissions from the cogeneration facility and from the boilers based on stack testing and fuel usage. These monitoring, recordkeeping and recording procedures and data are provided in the emission unit compliance plan section.</p> <p>The cogeneration equipment to be specified has a very high reliability and one or more of the turbines is expected to run on a continual basis. Thus, inasmuch as the NOx emissions from the new gas turbines and heat recovery steam generators are significantly lower than either the existing boilers or the PLM generator units, it is anticipated that the total emissions from the new cogeneration facility will be significantly lower than the maximum allowable permitted emissions for the current facility. No changes are being made to existing emission units U00009 and U00010.</p>		

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## Compliance Statements (Title V Only)

I certify that as of the date of this application the facility is in compliance with all applicable requirements:  YES  NO  
 If one or more emission units at the facility are not in compliance with all applicable requirements at the time of signing this application (the 'NO' box must be checked), the noncomplying units must be identified in the "Compliance Plan" block on page 8 of this form along with the compliance plan information required. For all emission units at this facility that are operating in compliance with all applicable requirements complete the following:

- This facility will continue to be operated and maintained in such a manner as to assure compliance for the duration of the permit, except those units referenced in the compliance plan portion of Section IV of this application.
- For all emission units, subject to any applicable requirements that will become effective during the term of the permit, this facility will meet all such requirements on a timely basis.
- Compliance certification reports will be submitted at least once a year. Each report will certify compliance status with respect to each requirement, and the method used to determine the status.

## Facility Applicable Federal Requirements Continuation Sheet(s)

Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	200							
6	NYCRR	201	1						
6	NYCRR	201	2						
6	NYCRR	201	3						
6	NYCRR	201	6						
6	NYCRR	201	7						
6	NYCRR	202-1							
6	NYCRR	202-2							
6	NYCRR	211	3						
6	NYCRR	215							
6	NYCRR	225-1							
6	NYCRR	227-1	3	(a)					
6	NYCRR	227-2							
6	NYCRR	227-2	2.5	(b)					
6	NYCRR	231	6.2						
6	NYCRR	231	8.2						
40	CFR	60.7							
40	CFR	60.8							
40	CFR	60.43c	(c)						
40	CFR	68							
40	CFR	82							
40	CFR	60.4300	KKKK						
40	CFR	98							

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Facility State Only Requirements <input type="checkbox"/> Continuation Sheet(s)									
Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
ECL	19	0301							
6	NYCRR	201	1.4						
6	NYCRR	211	2						

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**Section III - Facility Information (continued)**

Facility Compliance Certification <input type="checkbox"/> Continuation Sheet(s)									
Rule Citation									
Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
6	NYCRR	231	6.2	(c)	(1)				
<input checked="" type="checkbox"/> Applicable Federal Requirement <input type="checkbox"/> State Only Requirement		<input type="checkbox"/> Capping		CAS No.		Contaminant Name			
Monitoring Information									
<input type="checkbox"/> Ambient Air Monitoring		<input checked="" type="checkbox"/> Work Practice Involving Specific Operations			<input type="checkbox"/> Record Keeping/Maintenance Procedures				
Description									
Per 231-6.2(c)(1) the facility is accepting a permit condition prohibiting the proposed cogeneration plant from commencing operation until after the close of the contemporaneous period for the PLM units, which is 7/17/2012. The proposed cogeneration plant will not commence operation until after 7/17/2012.									
Work Practice	Process Material			Reference Test Method					
Type	Code	Description							
Parameter				Manufacturer Name/Model No.					
Code		Description							
Limit		Limit Units							
Upper	Lower	Code		Description					
Averaging Method			Monitoring Frequency			Reporting Requirements			
Code	Description		Code	Description		Code	Description		
			13	Single Occurrence		01	Once / Batch or Monitoring Occurrence		

Facility Emissions Summary <input type="checkbox"/> Continuation Sheet(s)				
CAS No.	Contaminant Name	PTE		Actual (lbs/yr)
		(lbs/yr)	Range Code	
NY075 - 00 - 5	PM-10s		C	
NY075 - 00 - 0	PARTICULATES		C	
7446 - 09 - 5	SULFUR DIOXIDE		C	
NY210 - 00 - 0	OXIDES OF NITROGEN		F	
630 - 08 - 0	CARBON MONOXIDE		F	
7439 - 92 - 1	LEAD		A	
NY998 - 00 - 0	VOC		B	
NY100 - 00 - 0	HAP		C	
-	-			
-	-	[See Attached Emission Calculation Tables]		

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## Section IV - Emission Unit Information

Emission Unit Description <input type="checkbox"/> Continuation Sheet(s)											
EMISSION UNIT U - 0 0 0 0 1											
This emission unit is comprised of 4 Keeler 96 mmbtu/hr boilers, each capable of producing 70,000 lb/hr of 150 psi steam. Each boiler is retrofitted with two low NO <sub>x</sub> burners. The four boilers discharge through a common stack. The four boilers fire with a total firing rate not to exceed 250 mmbtu/hr. Emission sources listed under this emission unit 00001, 00002, 00003 and 00004 are the boilers numbered as 6,7,8 & 9 in the NO <sub>x</sub> RACT averaging compliance plan submitted on 10/5/01. Operation of these four boilers is being curtailed and ERCs are being applied for and used as internal offsets.											

Building <input type="checkbox"/> Continuation Sheet(s)				
Building	Building Name	Length (ft)	Width (ft)	Orientation
14	Boiler Plant			

Emission Point <input type="checkbox"/> Continuation Sheet(s)						
EMISSION PT. U 0 0 0 1						
Ground Elev. (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section	
15	182	122	123		Length (in)	Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (KM)	NYTM (N) (KM)	Building	Distance to Property Line (ft)	Date of Removal
		593.6	4516.6	14		

Emission Source/Control <input checked="" type="checkbox"/> Continuation Sheet(s)							
Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.
ID	Type				Code	Description	
00001	C	7/99	4/00		103	Low NO <sub>x</sub> burners	Keeler boiler #14599-1 with Todd variflame burners
Design Capacity	Design Capacity Units			Waste Feed		Waste Type	
	Code	Description		Code	Description	Code	Description
96	25	million Btu per hour					
Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.
ID	Type				Code	Description	
00002	C	7/99	4/00		103	Low NO <sub>x</sub> burners	Keeler boiler #14599-2 with Todd variflame burners
Design Capacity	Design Capacity Units			Waste Feed		Waste Type	
	Code	Description		Code	Description	Code	Description
96	25	million Btu per hour					
Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.
ID	Type				Code	Description	
00003	C	7/99	4/00		103	Low NO <sub>x</sub> burners	Keeler boiler #14599-3 with Todd variflame burners
Design Capacity	Design Capacity Units			Waste Feed		Waste Type	
	Code	Description		Code	Description	Code	Description
96	25	million Btu per hour					

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**Section IV - Emission Unit Information (continued)**

Emission Source/Control (continuation)							
Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.
ID	Type				Code	Description	
00004	C	7/99	4/00		103	Low NO <sub>x</sub> burners	Keeler boiler #14599-4 with Todd variflame burners
Design Capacity	Design Capacity Units			Waste Feed		Waste Type	
	Code	Description		Code	Description	Code	Description
96	25	million Btu per hour					

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**Section IV - Emission Unit Information (continued)**

Process Information <input type="checkbox"/> Continuation Sheet(s)											
EMISSION UNIT    U - 0 0 0 0 1								PROCESS    0 0 1			
Description											
Firing natural gas in each of the four boilers (001-004), each rated at 96 mmbtu/hr. Backup fuel (only during gas interruption) is #2 fuel oil.											
Source Classification Code (SCC)		Total Thruput		Thruput Quantity Units							
1-03-006-02		Quantity/Hr	Quantity/Yr	Code	Description						
<input type="checkbox"/> Confidential <input type="checkbox"/> Operating at Maximum Capacity <input type="checkbox"/> Activity with Insignificant Emissions		Operating Schedule			Building	Floor/Location					
		Hrs/Day	Days/Yr								
		24	345-365	14							
Emission Source/Control Identifier(s)											
00001	00002	00003	00004								
EMISSION UNIT    U - 0 0 0 0 1								PROCESS    0 0 2			
Description											
Firing #2 fuel oil as a backup fuel in the four boilers during natural gas interruption.											
Source Classification Code (SCC)		Total Thruput		Thruput Quantity Units							
1-03-005-02		Quantity/Hr	Quantity/Yr	Code	Description						
<input type="checkbox"/> Confidential <input type="checkbox"/> Operating at Maximum Capacity <input type="checkbox"/> Activity with Insignificant Emissions		Operating Schedule			Building	Floor/Location					
		Hrs/Day	Days/Yr								
		24	365	14							
Emission Source/Control Identifier(s)											
00001	00002	00003	00004								

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**Section IV - Emission Unit Information (continued)**

Emission Unit	Emission Point	Process	Emission Source	Emission Unit Applicable Federal Requirements <input type="checkbox"/> Continuation Sheet(s)									
				Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
U - 00001	U0001			40	CFR	60	46c	(d)	(2)				
U - 00001	U0001			40	CFR	60	48c						
U - 00001	U0001	001	00001	40	CFR	60	40c						
U - 00001	U0001	001	00002	40	CFR	60	40c						
U - 00001	U0001	001	00003	40	CFR	60	40c						
U - 00001	U0001	001	00004	40	CFR	60	40c						
U - 00001	U0001	002	00001	40	CFR	60	40c						
U - 00001	U0001	002	00002	40	CFR	60	40c						
U - 00001	U0001	002	00003	40	CFR	60	40c						
U - 00001	U0001	002	00004	40	CFR	60	40c						
U - 00001	U0001			6	NYCRR	227	1.4	(b)					
U - 00001	U0001			40	CFR	60	13						
U - 00001	U0001			40	CFR	60	13	(c)					
U - 00001	U0001			40	CFR	60	45	c					
U - 00001	U0001	002		6	NYCRR	227	2	(b)	(1)				
U - 00001				6	NYCRR	201	7	3					
U - 00001				6	NYCRR	231	10	2					
U - 00001				6	NYCRR	231	10	3	(a)	(1)			
U - 00001				6	NYCRR	231	10	3	(b)				
U - 00001				6	NYCRR	231	10	5					

Emission Unit	Emission Point	Process	Emission Source	Emission Unit State Only Requirements <input type="checkbox"/> Continuation Sheet(s)									
				Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
-													
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## Section IV - Emission Unit Information

Emission Unit Compliance Certification <input type="checkbox"/> Continuation Sheet(s)										
Rule Citation										
Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause	
6	NYCRR	231	10							
<input checked="" type="checkbox"/> Applicable Federal Requirement						<input type="checkbox"/> State Only Requirement		<input checked="" type="checkbox"/> Capping		
Emission Unit	Emission Point	Process	Emission Source	CAS No.			Contaminant Name			
U - 00001				NY210 - 00 - 0			Oxides of Nitrogen			
Monitoring Information										
<input type="checkbox"/> Continuous Emission Monitoring <input type="checkbox"/> Intermittent Emission Testing <input type="checkbox"/> Ambient Air Monitoring			<input type="checkbox"/> Monitoring of Process or Control Device Parameters as Surrogate <input checked="" type="checkbox"/> Work Practice Involving Specific Operations <input type="checkbox"/> Record Keeping/Maintenance Procedures							
Description										
<p>The facility is proposing a NO<sub>x</sub> emission cap of 8.00 tons per year to restrict the NO<sub>x</sub> emissions from Emission Unit U-00001 through the curtailment of operation. 6.81 tpy NO<sub>x</sub> ERCs are created. The following formula will be used to calculate the monthly NO<sub>x</sub> emissions and to demonstrate compliance with this cap on a rolling 12-month basis:</p> $X = ((A \times B) + (C \times D)) / 2000$ <p>Where:          X = monthly NO<sub>x</sub> emissions (tons);          A = the monthly fuel consumption of number 2 oil in the four existing boilers (00001, 00002, 00003, 00004) (1000 gallons);          B = NO<sub>x</sub> emission factor from the most recent stack test (lbs/1000 gallons). This factor is 17.28 lbs/1000 gallons based on a 2007 stack test;          C = the monthly fuel consumption of natural gas in the four existing boilers (mmscf);          D = NO<sub>x</sub> emission factor from the most recent stack test (lbs/mmscf). This factor is 72.56 lbs/mmscf based on a 2007 stack test;          A rolling 12-month tally will be maintained to ensure compliance with the 8.00 tpy limit.</p>										
Work Practice	Process Material			Reference Test Method						
Type	Code	Description		Reference Test Method						
03	318	Fuel		Reference Test Method						
Parameter				Manufacturer Name/Model No.						
Code		Description		Manufacturer Name/Model No.						
Limit				Limit Units						
Upper		Lower		Code	Description					
8.00				38	Tons per year					
Averaging Method			Monitoring Frequency			Reporting Requirements				
Code	Description		Code	Description		Code	Description			
17	Annual maximum rolled monthly		05	Monthly		15	Annually (calendar)			

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**Section IV - Emission Unit Information (continued)**

Emission Unit Compliance Certification <input type="checkbox"/> Continuation Sheet(s)																																																																																																																																						
Rule Citation																																																																																																																																						
Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause																																																																																																																													
6	NYCRR	210																																																																																																																																				
X Applicable Federal Requirement <input type="checkbox"/> State Only Requirement						X Capping																																																																																																																																
Emission Unit	Emission Point	Process	Emission Source	CAS No.			Contaminant Name																																																																																																																															
U - 00001				NY075 - 00 - 5			PM-10s																																																																																																																															
Monitoring Information																																																																																																																																						
<input type="checkbox"/> Continuous Emission Monitoring <input type="checkbox"/> Intermittent Emission Testing <input type="checkbox"/> Ambient Air Monitoring			<input type="checkbox"/> Monitoring of Process or Control Device Parameters as Surrogate <input checked="" type="checkbox"/> Work Practice Involving Specific Operations <input type="checkbox"/> Record Keeping/Maintenance Procedures																																																																																																																																			
Description																																																																																																																																						
<p>The facility is proposing a PM<sub>10</sub> emission cap of 1.10 tons per year to restrict the PM<sub>10</sub> emissions from Emission Unit U-00001 through the curtailment of operation. 1.14 tpy PM<sub>10</sub> ERCs are created. The following formula will be used to calculate the monthly PM<sub>10</sub> emissions and to demonstrate compliance with this cap on a rolling 12-month basis:</p> $X = ((A \times B) + (C \times D)) / 2000$ <p>Where:</p> <p>X = monthly facility PM<sub>10</sub> emissions (tons);</p> <p>A = the monthly fuel consumption of number 2 oil in the four existing boilers (00001, 00002, 00003, 00004) (1000 gallons);</p> <p>B = 2.38 lbs PM<sub>10</sub> / 1000 gallons burned (based on EPA's AP-42 emission factor);</p> <p>C = the monthly fuel consumption of natural gas in the four existing boilers (mmscf);</p> <p>D = 7.6 lbs PM<sub>10</sub> / million cubic feet burned (based on EPA's AP-42 emission factor);</p> <p>A rolling 12-month tally will be maintained to ensure compliance with the 1.10 tpy limit.</p>																																																																																																																																						
<table border="1"> <tr> <td rowspan="2">Work Practice</td><td colspan="4">Process Material</td><td colspan="6" rowspan="2">Reference Test Method</td> </tr> <tr> <td>Type</td><td>Code</td><td colspan="2">Description</td> </tr> <tr> <td>03</td><td>318</td><td colspan="2">Fuel</td><td colspan="6"></td> </tr> <tr> <td colspan="11">Parameter</td> </tr> <tr> <td colspan="2">Code</td><td colspan="4">Description</td><td colspan="5">Manufacturer Name/Model No.</td> </tr> <tr> <td colspan="2"></td><td colspan="4"></td><td colspan="5"></td> </tr> <tr> <td colspan="11">Limit</td> </tr> <tr> <td colspan="2">Upper</td><td colspan="3">Lower</td><td>Code</td><td colspan="5">Limit Units</td> </tr> <tr> <td colspan="2">1.10</td><td colspan="3"></td><td>38</td><td colspan="5">Description Tons per year</td> </tr> <tr> <td colspan="11">Averaging Method</td> </tr> <tr> <td>Code</td><td colspan="3">Description</td><td>Code</td><td colspan="3">Monitoring Frequency</td><td>Code</td><td colspan="2">Reporting Requirements</td> </tr> <tr> <td>17</td><td colspan="3">Annual maximum rolled monthly</td><td>05</td><td colspan="3">Monthly</td><td>15</td><td colspan="2">Annually (calendar)</td> </tr> </table>											Work Practice	Process Material				Reference Test Method						Type	Code	Description		03	318	Fuel								Parameter											Code		Description				Manufacturer Name/Model No.																Limit											Upper		Lower			Code	Limit Units					1.10					38	Description Tons per year					Averaging Method											Code	Description			Code	Monitoring Frequency			Code	Reporting Requirements		17	Annual maximum rolled monthly			05	Monthly			15	Annually (calendar)	
Work Practice	Process Material				Reference Test Method																																																																																																																																	
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**Section IV - Emission Unit Information (continued)**

Emission Unit Compliance Certification <input type="checkbox"/> Continuation Sheet(s)										
Rule Citation										
Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause	
6	NYCRR	202-1								
<input checked="" type="checkbox"/> Applicable Federal Requirement					<input type="checkbox"/> State Only Requirement			<input type="checkbox"/> Capping		
Emission Unit	Emission Point	Process	Emission Source	CAS No.			Contaminant Name			
U - 00001		001	00001 00002 00003 00004	NY210 - 00 - 0			Oxides of Nitrogen			
		002	00001 00002 00003 00004							
Monitoring Information										
<input type="checkbox"/> Continuous Emission Monitoring				<input type="checkbox"/> Monitoring of Process or Control Device Parameters as Surrogate						
<input checked="" type="checkbox"/> Intermittent Emission Testing				<input type="checkbox"/> Work Practice Involving Specific Operations						
<input type="checkbox"/> Ambient Air Monitoring				<input type="checkbox"/> Record Keeping/Maintenance Procedures						
Description										
Once during the term of the Title V permit, the facility will perform a NOx emission stack test, as per Department approved test protocol, to determine NOx emission factors of the boilers.										
Work Practice	Process Material									
Type	Code	Description			Reference Test Method					
					40 CFR 60 Appendix A					
Parameter										
Code		Description			Manufacturer Name/Model No.					
Limit										
Upper		Lower			Code	Limit Units				
						Description				
Averaging Method				Monitoring Frequency			Reporting Requirements			
Code	Description			Code	Description		Code	Description		
08	1-hour average			17	Once during the term of the permit		15	Annually		

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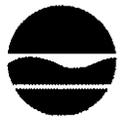


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**Section IV - Emission Unit Information (continued)**

Emission Unit Compliance Certification <input type="checkbox"/> Continuation Sheet(s)										
Rule Citation										
Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause	
6	NYCRR	202-1								
<input checked="" type="checkbox"/> Applicable Federal Requirement						<input type="checkbox"/> State Only Requirement		<input checked="" type="checkbox"/> Capping		
Emission Unit	Emission Point	Process	Emission Source	CAS No.			Contaminant Name			
U - 00001		001	00001 00002 00003 00004	NY275 - 00 - 5			PM-10s			
		002	00001 00002 00003 00004							
Monitoring Information										
<input type="checkbox"/> Continuous Emission Monitoring <input checked="" type="checkbox"/> Intermittent Emission Testing <input type="checkbox"/> Ambient Air Monitoring					<input type="checkbox"/> Monitoring of Process or Control Device Parameters as Surrogate <input type="checkbox"/> Work Practice Involving Specific Operations <input type="checkbox"/> Record Keeping/Maintenance Procedures					
Description										
Once during the term of the Title V permit, the facility will perform a PM <sub>10</sub> emission stack test, as per Department approved test protocol, to determine PM <sub>10</sub> emission factors of the boilers.										
Work Practice	Process Material				Reference Test Method					
Type	Code	Description			40 CFR 60 Appendix A					
Parameter					Manufacturer Name/Model No.					
Code		Description								
Limit					Limit Units					
Upper		Lower			Code	Description				
Averaging Method				Monitoring Frequency				Reporting Requirements		
Code	Description			Code	Description			Code	Description	
08	1-hour average			17	Once during the term of the permit			15	Annually	

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**Section IV - Emission Unit Information (continued)**

Determination of Non-Applicability (Title V Only) <input type="checkbox"/> Continuation Sheet(s)									
Rule Citation									
Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
Emission Unit	Emission Point	Process	Emission Source			<input type="checkbox"/> Applicable Federal Requirement <input type="checkbox"/> State Only Requirement			
-									
Description									
Rule Citation									
Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
Emission Unit	Emission Point	Process	Emission Source			<input type="checkbox"/> Applicable Federal Requirement <input type="checkbox"/> State Only Requirement			
-									
Description									
Process Emissions Summary <input type="checkbox"/> Continuation Sheet(s)									
EMISSION UNIT	-								
CAS No.	Contaminant Name			% Thruput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined	
-	-								
PTE			Standard Units	PTE How Determined		Actual			
(lbs/hr)	(lbs/yr)	(standard units)				(lbs/hr)	(lbs/yr)		
EMISSION UNIT	-								
CAS No.	Contaminant Name			% Thruput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined	
-	-								
PTE			Standard Units	PTE How Determined		Actual			
(lbs/hr)	(lbs/yr)	(standard units)				(lbs/hr)	(lbs/yr)		
EMISSION UNIT	-								
CAS No.	Contaminant Name			% Thruput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined	
-	-								
PTE			Standard Units	PTE How Determined		Actual			
(lbs/hr)	(lbs/yr)	(standard units)				(lbs/hr)	(lbs/yr)		

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**Section IV - Emission Unit Information (continued)**

EMISSION UNIT		Emission Unit Emissions Summary <input type="checkbox"/> Continuation Sheet(s)			
U - 0 0 0 0 1					
CAS No.		Contaminant Name			
NY210 - 00 - 0		Oxides of Nitrogen			
		PTE Emissions		Actual	
ERP (lbs/yr)		(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
16,000		31.30	16,000		
CAS No.		Contaminant Name			
NY275 - 00 - 5		PM-10s			
		PTE Emissions		Actual	
ERP (lbs/yr)		(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
2,204		4.31	2,204		
CAS No.		Contaminant Name			
-					
		PTE Emissions		Actual	
ERP (lbs/yr)		(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
CAS No.		Contaminant Name			
-					
		PTE Emissions		Actual	
ERP (lbs/yr)		(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)

Compliance Plan <input type="checkbox"/> Continuation Sheet(s)												
For any emission units which are <u>not in compliance</u> at the time of permit application, the applicant shall complete the following												
Consent Order			Certified progress reports are to be submitted every 6 months beginning ____ / ____ / ____									
Emission Unit	Process	Emission Source	Applicable Federal Requirement									
			Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
-												
Remedial Measure / Intermediate Milestones										R/I	Date Scheduled	

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**Section IV - Emission Unit Information (continued)**

Request for Emission Reduction Credits <input type="checkbox"/> Continuation Sheet(s)											
EMISSION UNIT		U - 0 0 0 0 0 1									
Emission Reduction Description											
Boiler operations from emission sources 00001, 00002, 00003, and 00004 under emission unit U00001 will be curtailed upon operation of the new cogeneration plant. Total NOx emissions from U00001 are proposed to be capped at 8.00 tpy, creating 6.81 tpy NOx ERCs. Total PM <sub>10</sub> emissions from U00001 are proposed to be capped at 1.10 tpy, creating 1.14 tpy PM <sub>10</sub> ERCs. These ERCs are being used as internal offsets in the netting analyses per 231-6.2 and 231-8.2 to show that the net emission increase of the proposed facility modification is below the significant net emission increase thresholds for NOx and PM <sub>10</sub> and as such, the modification does not result in a NSR major modification and is not subject to NANSR or PSD.											
Contaminant Emission Reduction Data											
Baseline Period 01 / 01 / 2007 to 12 / 31 / 2008						Reduction					
						Date			Method		
						07 / 18 / 2012			02-Curtailment of operation		
						ERC (lbs/yr)					
CAS No.				Contaminant Name		Netting			Offset		
NY210 - 00 - 0				Oxides of Nitrogen		13,629.4					
NY275 - 00 - 5				PM-10s		2,286.5					
Facility to Use Future Reduction											
Name		NYC-DOC-Rikers Island				APPLICATION ID					
						2 - 6 0 0 7 - 0 0 2 5 9 / 0 0 0 3 3					
Location Address 17-25 Hazen Street, East Elmhurst											
X City / <input type="checkbox"/> Town / <input type="checkbox"/> Village				State New York				Zip 11370			

Use of Emission Reduction Credits <input type="checkbox"/> Continuation Sheet(s)											
EMISSION UNIT		U - 0 0 0 0 1 1									
Proposed Project Description											
Operation of a new cogeneration plant consisting of two new 7.5 MW natural gas-fired simple cycle gas combustion turbines (CTGs) equipped with duct firing heat recovery steam generators (HRSGs).											
Contaminant Emissions Increase Data											
CAS No.				Contaminant Name		PEP (lbs/yr)					
NY210 - 00 - 0				Oxides of Nitrogen		83,999.2					
NY275 - 00 - 5				PM-10s		31,545.8					
Statement of Compliance											
X All facilities under the ownership of this "ownership/firm" are operating in compliance with all applicable requirements and state regulations including any compliance certification requirements under Section 114(a)(3) of the Clean Air Act Amendments of 1990, or are meeting the schedule of a consent order.											
Source of Emission Reduction Credit - Facility											
Name		PERMIT ID									
		2 - 6 0 0 7 - 0 0 2 5 9 / 0 0 0 3 3									
Location Address 17-25 Hazen Street, East Elmhurst											
X City / <input type="checkbox"/> Town / <input type="checkbox"/> Village				State New York				Zip 11370			
Emission Unit		CAS No.		Contaminant Name		Netting			Offset		
U-00001		NY210 - 00 - 0		Oxides of Nitrogen		13,629.4					
U-00001		NY275 - 00 - 5		PM-10s		2,286.5					

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**Section IV - Emission Unit Information**

Emission Unit Description <input type="checkbox"/> Continuation Sheet(s)											
EMISSION UNIT U - 0 0 0 0 2											
This emission unit is comprised of 2 Keeler 96 mmBtu/hr boilers, each capable of producing 70,000 lb/hr of 150 psi steam. Each boiler is retrofitted with two low NO <sub>x</sub> burners. The two boilers discharge through a common stack. Emission sources listed under this emission unit 00005 and 00006 are the boilers numbered as 2 & 3 in the NO <sub>x</sub> RACT averaging compliance plan submitted on 10/5/01. Operation of these two boilers is being curtailed and ERCs are being applied for and used as internal offsets.											

Building <input type="checkbox"/> Continuation Sheet(s)				
Building	Building Name	Length (ft)	Width (ft)	Orientation
14	Boiler Plant			

Emission Point <input type="checkbox"/> Continuation Sheet(s)						
EMISSION PT. U 0 0 0 2						
Ground Elev. (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section	
15	185	125	123		Length (in)	Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (KM)	NYTM (N) (KM)	Building	Distance to Property Line (ft)	Date of Removal
		593.6	4516.6	14		

Emission Source/Control <input type="checkbox"/> Continuation Sheet(s)							
Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.
ID	Type				Code	Description	
00005	C	7/99	4/00		103	Low NO <sub>x</sub> burners	Keeler boiler #14574-3 with Todd variflame burners
Design Capacity	Design Capacity Units			Waste Feed		Waste Type	
	Code	Description		Code	Description	Code	Description
96	25	million Btu per hour					
Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.
ID	Type				Code	Description	
00006	C	7/99	4/00		103	Low NO <sub>x</sub> burners	Keeler boiler #15474-2 with Todd variflame burners
Design Capacity	Design Capacity Units			Waste Feed		Waste Type	
	Code	Description		Code	Description	Code	Description
96	25	million Btu per hour					

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**Section IV - Emission Unit Information (continued)**

Process Information <input type="checkbox"/> Continuation Sheet(s)																			
EMISSION UNIT							U	-	0	0	0	0	2	PROCESS			0	0	3
Description																			
Firing natural gas in each of the two boilers (005-006), each rated at 96 mmbtu/hr. Backup fuel (only during gas interruption) is #2 fuel oil.																			
Source Classification Code (SCC)			Total Thruput				Thruput Quantity Units												
1-03-006-02			Quantity/Hr		Quantity/Yr		Code			Description									
<input type="checkbox"/> Confidential <input type="checkbox"/> Operating at Maximum Capacity <input type="checkbox"/> Activity with Insignificant Emissions			Operating Schedule				Building			Floor/Location									
			Hrs/Day		Days/Yr		14												
			24		345-365														
Emission Source/Control Identifier(s)																			
00005			00006																
EMISSION UNIT																			
U							-	0	0	0	0	2	PROCESS			0	0	4	
Description																			
Firing #2 fuel oil as a backup fuel in the two boilers during natural gas interruption.																			
Source Classification Code (SCC)			Total Thruput				Thruput Quantity Units												
1-03-005-02			Quantity/Hr		Quantity/Yr		Code			Description									
<input type="checkbox"/> Confidential <input checked="" type="checkbox"/> Operating at Maximum Capacity <input type="checkbox"/> Activity with Insignificant Emissions			Operating Schedule				Building			Floor/Location									
			Hrs/Day		Days/Yr		14												
			24		365														
Emission Source/Control Identifier(s)																			
00005			00006																

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**Section IV - Emission Unit Information (continued)**

Emission Unit	Emission Point	Process	Emission Source	Emission Unit Applicable Federal Requirements <input type="checkbox"/> Continuation Sheet(s)									
				Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
U - 00002	U0002			40	CFR	60	46c	(d)	(2)				
U - 00002	U0002			40	CFR	60	48c						
U - 00002	U0002	003	00005	40	CFR	60	40c						
U - 00002	U0002	003	00006	40	CFR	60	40c						
U - 00002	U0002	004	00005	40	CFR	60	40c						
U - 00002	U0002	004	00006	40	CFR	60	40c						
U - 00002	U0002			6	NYCRR	227	1.4	(b)					
U - 00002	U0002			40	CFR	60	13						
U - 00002	U0002			40	CFR	60	13	(c)					
U - 00002	U0002			40	CFR	60	45	c					
U - 00002	U0002	004		6	NYCRR	227	2	(b)	(1)				
U - 00002				6	NYCRR	227	1.3						
U - 00002				6	NYCRR	201	7	3					
U - 00002				6	NYCRR	231	10	2					
U - 00002				6	NYCRR	231	10	3	(a)	(1)			
U - 00002				6	NYCRR	231	10	3	(b)				
U - 00002				6	NYCRR	231	10	5					

Emission Unit	Emission Point	Process	Emission Source	Emission Unit State Only Requirements <input type="checkbox"/> Continuation Sheet(s)									
				Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
-													
-													
-													

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## Section IV - Emission Unit Information

Emission Unit Compliance Certification <input type="checkbox"/> Continuation Sheet(s)										
Rule Citation										
Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause	
6	NYCRR	231	10							
<input checked="" type="checkbox"/> Applicable Federal Requirement					<input type="checkbox"/> State Only Requirement		<input checked="" type="checkbox"/> Capping			
Emission Unit	Emission Point	Process	Emission Source	CAS No.			Contaminant Name			
U - 00002				NY210 - 00 - 0			Oxides of Nitrogen			
Monitoring Information										
<input type="checkbox"/> Continuous Emission Monitoring <input type="checkbox"/> Intermittent Emission Testing <input type="checkbox"/> Ambient Air Monitoring			<input type="checkbox"/> Monitoring of Process or Control Device Parameters as Surrogate <input checked="" type="checkbox"/> Work Practice Involving Specific Operations <input type="checkbox"/> Record Keeping/Maintenance Procedures							
Description										
<p>The facility is proposing a NO<sub>x</sub> emission cap of 2.00 tons per year to restrict the NO<sub>x</sub> emissions from Emission Unit U-00002 through the curtailment of operation. 6.83 tpy NO<sub>x</sub> ERCs are created. The following formula will be used to calculate the monthly NO<sub>x</sub> emissions and to demonstrate compliance with this cap on a rolling 12-month basis:</p> $X = ((A \times B) + (C \times D)) / 2000$ <p>Where:</p> <p>X = monthly NO<sub>x</sub> emissions (tons);</p> <p>A = the monthly fuel consumption of number 2 oil in the two existing boilers (00005 and 00006) (1000 gallons);</p> <p>B = NO<sub>x</sub> emission factor from the most recent stack test (lbs/1000 gallons). This factor is 17.28 lbs/1000 gallons based on a 2007 stack test;</p> <p>C = the monthly fuel consumption of natural gas in the two existing boilers (mmscf);</p> <p>D = NO<sub>x</sub> emission factor from the most recent stack test (lbs/mmscf). This factor is 72.56 lbs/mmscf based on a 2007 stack test;</p> <p>A rolling 12-month tally will be maintained to ensure compliance with the 2.00 tpy limit.</p>										
Work Practice	Process Material				Reference Test Method					
Type	Code	Description			Reference Test Method					
03	318	Fuel								
Parameter				Manufacturer Name/Model No.						
Code		Description			Manufacturer Name/Model No.					
Limit				Limit Units						
Upper		Lower			Code	Description				
2.00					38	Tons per year				
Averaging Method			Monitoring Frequency			Reporting Requirements				
Code	Description		Code	Description		Code	Description			
17	Annual maximum rolled monthly		05	Monthly		15	Annually (calendar)			

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## Section IV - Emission Unit Information (continued)

Emission Unit Compliance Certification <input type="checkbox"/> Continuation Sheet(s)										
Rule Citation										
Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause	
6	NYCRR	201	10							
X Applicable Federal Requirement <input type="checkbox"/> State Only Requirement						X Capping				
Emission Unit	Emission Point	Process	Emission Source	CAS No.			Contaminant Name			
U - 00002				NY075 - 00 - 5			PM-10s			
Monitoring Information										
<input type="checkbox"/> Continuous Emission Monitoring <input type="checkbox"/> Intermittent Emission Testing <input type="checkbox"/> Ambient Air Monitoring			<input type="checkbox"/> Monitoring of Process or Control Device Parameters as Surrogate <input checked="" type="checkbox"/> Work Practice Involving Specific Operations <input type="checkbox"/> Record Keeping/Maintenance Procedures							
Description										
<p>The facility is proposing a PM<sub>10</sub> emission cap of 0.28 tons per year to restrict the PM<sub>10</sub> emissions from Emission Unit U-00002 through the curtailment of operation. 1.05 tpy PM<sub>10</sub> ERCs are created. The following formula will be used to calculate the monthly PM<sub>10</sub> emissions and to demonstrate compliance with this cap on a rolling 12-month basis:</p> $X = ((A \times B) + (C \times D)) / 2000$ <p>Where:</p> <p>X = monthly facility PM<sub>10</sub> emissions (tons);</p> <p>A = the monthly fuel consumption of number 2 oil in the two existing boilers (00005 and 00006) (1000 gallons);</p> <p>B = 2.38 lbs PM<sub>10</sub> / 1000 gallons burned (based on EPA's AP-42 emission factor);</p> <p>C = the monthly fuel consumption of natural gas in the two existing boilers (mmscf);</p> <p>D = 7.6 lbs PM<sub>10</sub> / million cubic feet burned (based on EPA's AP-42 emission factor);</p> <p>A rolling 12-month tally will be maintained to ensure compliance with the 0.28 tpy limit.</p>										
Work Practice	Process Material				Reference Test Method					
Type	Code	Description			Reference Test Method					
03	318	Fuel								
Parameter				Manufacturer Name/Model No.						
Code		Description			Manufacturer Name/Model No.					
Limit				Limit Units						
Upper		Lower			Code	Description				
0.28					38	Tons per year				
Averaging Method			Monitoring Frequency			Reporting Requirements				
Code	Description		Code	Description		Code	Description			
17	Annual maximum rolled monthly		05	Monthly		15	Annually (calendar)			

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**Section IV - Emission Unit Information (continued)**

Emission Unit Compliance Certification <input type="checkbox"/> Continuation Sheet(s)										
Rule Citation										
Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause	
6	NYCRR	202-1								
<input checked="" type="checkbox"/> Applicable Federal Requirement					<input type="checkbox"/> State Only Requirement			<input type="checkbox"/> Capping		
Emission Unit	Emission Point	Process	Emission Source	CAS No.			Contaminant Name			
U - 00002		003	00005 00006	NY210 - 00 - 0			Oxides of Nitrogen			
		004	00005 00006							
Monitoring Information										
<input type="checkbox"/> Continuous Emission Monitoring <input checked="" type="checkbox"/> Intermittent Emission Testing <input type="checkbox"/> Ambient Air Monitoring					<input type="checkbox"/> Monitoring of Process or Control Device Parameters as Surrogate <input type="checkbox"/> Work Practice Involving Specific Operations <input type="checkbox"/> Record Keeping/Maintenance Procedures					
Description										
Once during the term of the Title V permit, the facility will perform a NOx emission stack test, as per Department approved test protocol, to determine NOx emission factors of the boilers.										
<hr/>										
Work Practice	Process Material				Reference Test Method					
Type	Code	Description			40 CFR 60 Appendix A					
<hr/>										
Parameter										
Code		Description				Manufacturer Name/Model No.				
<hr/>										
Limit										
Upper		Lower			Code	Limit Units				
<hr/>										
Reporting Requirements										
Averaging Method		Monitoring Frequency			Reporting Requirements					
Code	Description			Code	Description			Code	Description	
08	1-hour average			17	Once during the term of the permit			15	Annually	

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**Section IV - Emission Unit Information (continued)**

Emission Unit Compliance Certification <input type="checkbox"/> Continuation Sheet(s)										
Rule Citation										
Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause	
6	NYCRR	201	202-1							
X Applicable Federal Requirement <input type="checkbox"/> State Only Requirement						X Capping				
Emission Unit	Emission Point	Process	Emission Source	CAS No.			Contaminant Name			
U - 00002		003	00005 00006	NY275 - 00 - 5			PM-10s			
		004	00005 00006							
Monitoring Information										
<input type="checkbox"/> Continuous Emission Monitoring <input checked="" type="checkbox"/> Intermittent Emission Testing <input type="checkbox"/> Ambient Air Monitoring				<input type="checkbox"/> Monitoring of Process or Control Device Parameters as Surrogate <input type="checkbox"/> Work Practice Involving Specific Operations <input type="checkbox"/> Record Keeping/Maintenance Procedures						
Description										
Once during the term of the Title V permit, the facility will perform a PM <sub>10</sub> emission stack test, as per Department approved test protocol, to determine PM <sub>10</sub> emission factors of the boilers.										
Work Practice	Process Material									
Type	Code	Description			Reference Test Method					
					40 CFR 60 Appendix A					
Parameter										
Code		Description			Manufacturer Name/Model No.					
Limit										
Upper		Lower			Code	Limit Units				
						Description				
Averaging Method				Monitoring Frequency			Reporting Requirements			
Code	Description			Code	Description		Code	Description		
08	1-hour average			17	Once during the term of the permit		15	Annually		

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## Section IV - Emission Unit Information (continued)

Determination of Non-Applicability (Title V Only) <input type="checkbox"/> Continuation Sheet(s)									
Rule Citation									
Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
Emission Unit	Emission Point	Process	Emission Source			<input type="checkbox"/> Applicable Federal Requirement <input type="checkbox"/> State Only Requirement			
-									
Description									
Rule Citation									
Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
Emission Unit	Emission Point	Process	Emission Source			<input type="checkbox"/> Applicable Federal Requirement <input type="checkbox"/> State Only Requirement			
-									
Description									
Process Emissions Summary <input type="checkbox"/> Continuation Sheet(s)									
EMISSION UNIT	-								
CAS No.	Contaminant Name			% Thruput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined	
-	-								
PTE			Standard Units	PTE How Determined		Actual			
(lbs/hr)	(lbs/yr)	(standard units)				(lbs/hr)	(lbs/yr)		
EMISSION UNIT	-								
CAS No.	Contaminant Name			% Thruput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined	
-	-								
PTE			Standard Units	PTE How Determined		Actual			
(lbs/hr)	(lbs/yr)	(standard units)				(lbs/hr)	(lbs/yr)		
EMISSION UNIT	-								
CAS No.	Contaminant Name			% Thruput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined	
-	-								
PTE			Standard Units	PTE How Determined		Actual			
(lbs/hr)	(lbs/yr)	(standard units)				(lbs/hr)	(lbs/yr)		

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## Section IV - Emission Unit Information (continued)

EMISSION UNIT		Emission Unit Emissions Summary <input type="checkbox"/> Continuation Sheet(s)			
U - 0 0 0 0 2					
CAS No.		Contaminant Name			
NY210 - 00 - 0		Oxides of Nitrogen			
		PTE Emissions		Actual	
ERP (lbs/yr)		(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
4,000		24.04	4,000		
CAS No.		Contaminant Name			
NY275 - 00 - 5		PM-10s			
		PTE Emissions		Actual	
ERP (lbs/yr)		(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
551		3.31	551		
CAS No.		Contaminant Name			
-					
		PTE Emissions		Actual	
ERP (lbs/yr)		(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
CAS No.		Contaminant Name			
-					
		PTE Emissions		Actual	
ERP (lbs/yr)		(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)

Compliance Plan <input type="checkbox"/> Continuation Sheet(s)												
For any emission units which are not in compliance at the time of permit application, the applicant shall complete the following												
Consent Order			Certified progress reports are to be submitted every 6 months beginning ____ / ____ / ____									
Emission Unit	Process	Emission Source	Applicable Federal Requirement									
			Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
-												
Remedial Measure / Intermediate Milestones										R/I	Date Scheduled	

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## Section IV - Emission Unit Information (continued)

Request for Emission Reduction Credits <input type="checkbox"/> Continuation Sheet(s)											
EMISSION UNIT		U - 0 0 0 0 0 2									
Emission Reduction Description											
Boiler operations from emission sources 00005 and 00006 under emission unit U00002 will be curtailed upon operation of the new cogeneration plant. Total NOx emissions from U00002 are proposed to be capped at 2.00 tpy, creating 6.83 tpy NOx ERCs. Total PM <sub>10</sub> emissions from U00002 are proposed to be capped at 0.28 tpy, creating 1.05 tpy PM <sub>10</sub> ERCs. These ERCs are being used as internal offsets in the netting analyses per 231-6.2 and 231-8.2 to show that the net emission increase of the proposed facility modification is below the significant net emission increase thresholds for NOx and PM <sub>10</sub> and as such, the modification does not result in a NSR major modification and is not subject to NANSR or PSD.											
Contaminant Emission Reduction Data											
Baseline Period <u>01 / 01 / 2007</u> to <u>12 / 31 / 2008</u>						Reduction					
						Date			Method		
						<u>07 / 18 / 2012</u>			02-Curtailment of operation		
						ERC (lbs/yr)					
CAS No.				Contaminant Name		Netting			Offset		
NY210 - 00 - 0				Oxides of Nitrogen		13,652.3					
NY275 - 00 - 5				PM-10s		2,091.6					
Facility to Use Future Reduction											
Name		NYC-DOC-Rikers Island									
		APPLICATION ID									
		2 - 6 0 0 7 - 0 0 2 5 9 / 0 0 0 3 3									
Location Address 17-25 Hazen Street, East Elmhurst											
X City / <input type="checkbox"/> Town / <input type="checkbox"/> Village				State New York				Zip 11370			

Use of Emission Reduction Credits <input type="checkbox"/> Continuation Sheet(s)											
EMISSION UNIT		U - 0 0 0 0 1 1									
Proposed Project Description											
Operation of a new cogeneration plant consisting of two new 7.5 MW natural gas-fired simple cycle gas combustion turbines (CTGs) equipped with duct firing heat recovery steam generators (HRSGs).											
Contaminant Emissions Increase Data											
CAS No.				Contaminant Name		PEP (lbs/yr)					
NY210 - 00 - 0				Oxides of Nitrogen		83,999.2					
NY275 - 00 - 5				PM-10s		31,545.8					
Statement of Compliance											
X All facilities under the ownership of this "ownership/firm" are operating in compliance with all applicable requirements and state regulations including any compliance certification requirements under Section 114(a)(3) of the Clean Air Act Amendments of 1990, or are meeting the schedule of a consent order.											
Source of Emission Reduction Credit - Facility											
Name		PERMIT ID									
		2 - 6 0 0 7 - 0 0 2 5 9 / 0 0 0 3 3									
Location Address 17-25 Hazen Street, East Elmhurst											
X City / <input type="checkbox"/> Town / <input type="checkbox"/> Village				State New York				Zip 11370			
Emission Unit		CAS No.		Contaminant Name		Netting			Offset		
U-00002		NY210 - 00 - 0		Oxides of Nitrogen		13,652.3					
U-00002		NY275 - 00 - 5		PM-10s		2,091.6					

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## Section IV - Emission Unit Information

Emission Unit Description <input type="checkbox"/> Continuation Sheet(s)											
EMISSION UNIT U - 0 0 0 0 3											
This emission unit is comprised of one Keeler 96 mmbtu/hr boiler, and one union iron works boiler, each capable of producing 70,000 lb/hr of 150 psig steam. Each boiler is retrofitted with two low Nox burners. The two boilers discharge through a common stack. Emission sources listed under this emission unit, 00007, 00008 are the boilers numbered as 4 & 5 in the NOx RACT averaging compliance plan submitted on 10/5/01. Operation of these two boilers is being curtailed and ERCs are being applied for and used as internal offsets.											

Building <input type="checkbox"/> Continuation Sheet(s)				
Building	Building Name	Length (ft)	Width (ft)	Orientation
14	Boiler Plant			

Emission Point <input type="checkbox"/> Continuation Sheet(s)						
EMISSION PT. U 0 0 0 3						
Ground Elev. (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section	
					Length (in)	Width (in)
15	170	110	84			
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (KM)	NYTM (N) (KM)	Building	Distance to Property Line (ft)	Date of Removal
		593.6	4516.6	14		

Emission Source/Control <input type="checkbox"/> Continuation Sheet(s)							
Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.
ID	Type				Code	Description	
00007	C	7/99	4/00		103	Low NO <sub>x</sub> burners	Keeler boiler #15474-1 with Todd variflame burners
Design Capacity	Design Capacity Units			Waste Feed		Waste Type	
	Code	Description		Code	Description	Code	Description
96	25	million Btu per hour					
Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.
ID	Type				Code	Description	
00008	C	7/99	4/00		103	Low NO <sub>x</sub> burners	Union Iron Works Boiler NB3618-90520 with Todd variflame burners
Design Capacity	Design Capacity Units			Waste Feed		Waste Type	
	Code	Description		Code	Description	Code	Description
96	25	million Btu per hour					

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**Section IV - Emission Unit Information (continued)**

Process Information <input type="checkbox"/> Continuation Sheet(s)																					
EMISSION UNIT						U	-	0	0	0	0	3	PROCESS			0	0	5			
Description																					
Firing natural gas.																					
Source Classification Code (SCC)			Total Thruput				Thruput Quantity Units														
1-03-006-02			Quantity/Hr		Quantity/Yr		Code			Description											
<input type="checkbox"/> Confidential <input type="checkbox"/> Operating at Maximum Capacity <input type="checkbox"/> Activity with Insignificant Emissions			Operating Schedule					Building		Floor/Location											
			Hrs/Day		Days/Yr																
			24		345-365			14													
Emission Source/Control Identifier(s)																					
00007			00008																		
EMISSION UNIT						U	-	0	0	0	0	3	There are no changes to this existing process.			PROCESS			0	0	6
Description																					
Firing #2 fuel oil as a backup fuel during natural gas interruption.																					
Source Classification Code (SCC)			Total Thruput				Thruput Quantity Units														
1-03-005-02			Quantity/Hr		Quantity/Yr		Code			Description											
<input type="checkbox"/> Confidential <input type="checkbox"/> Operating at Maximum Capacity <input type="checkbox"/> Activity with Insignificant Emissions			Operating Schedule					Building		Floor/Location											
			Hrs/Day		Days/Yr																
			24		365			14													
Emission Source/Control Identifier(s)																					
00007			00008																		

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Section IV - Emission Unit Information (continued)

Emission Unit	Emission Point	Process	Emission Source	Emission Unit Applicable Federal Requirements <input type="checkbox"/> Continuation Sheet(s)									
				Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
U - 00003	U0003			40	CFR	60	46c	(d)	(2)				
U - 00003	U0003			40	CFR	60	48c						
U - 00003	U0003	005	00007	40	CFR	60	40c						
U - 00003	U0003	005	00008	40	CFR	60	40c						
U - 00003	U0003	006	00007	40	CFR	60	40c						
U - 00003	U0003	006	00008	40	CFR	60	40c						
U - 00003	U0003			6	NYCRR	227	1.4	(b)					
U - 00003	U0003			40	CFR	60	13						
U - 00003	U0003			40	CFR	60	13	(c)					
U - 00003	U0003			40	CFR	60	45	c					
U - 00003	U0003	006		6	NYCRR	227	2	(b)	(1)				
U - 00003				6	NYCRR	227	1.3						
U - 00003				6	NYCRR	201	7	3					
U - 00003				6	NYCRR	231	10	2					
U - 00003				6	NYCRR	231	10	3	(a)				
U - 00003				6	NYCRR	231	10	3	(b)				
U - 00002				6	NYCRR	231	10	5					

Emission Unit	Emission Point	Process	Emission Source	Emission Unit State Only Requirements <input type="checkbox"/> Continuation Sheet(s)									
				Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
-													
-													
-													

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**Section IV - Emission Unit Information**

Emission Unit Compliance Certification <input type="checkbox"/> Continuation Sheet(s)										
Rule Citation										
Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause	
6	NYCRR	201	10							
X Applicable Federal Requirement <input type="checkbox"/> State Only Requirement						X Capping				
Emission Unit	Emission Point	Process	Emission Source	CAS No.			Contaminant Name			
U - 00003				NY210 - 00 - 0			Oxides of Nitrogen			
Monitoring Information										
<input type="checkbox"/> Continuous Emission Monitoring <input type="checkbox"/> Intermittent Emission Testing <input type="checkbox"/> Ambient Air Monitoring				<input type="checkbox"/> Monitoring of Process or Control Device Parameters as Surrogate <input checked="" type="checkbox"/> Work Practice Involving Specific Operations <input type="checkbox"/> Record Keeping/Maintenance Procedures						
Description										
<p>The facility is proposing a NO<sub>x</sub> emission cap of 1.00 tons per year to restrict the NO<sub>x</sub> emissions from Emission Unit U-00003 through the curtailment of operation. 3.93 tpy NO<sub>x</sub> ERCs are created. The following formula will be used to calculate the monthly NO<sub>x</sub> emissions and to demonstrate compliance with this cap on a rolling 12-month basis:</p> $X = ((A \times B) + (C \times D)) / 2000$ <p>Where:</p> <p>X = monthly NO<sub>x</sub> emissions (tons);</p> <p>A = the monthly fuel consumption of number 2 oil in the two existing boilers (00007 and 00008) (1000 gallons);</p> <p>B = NO<sub>x</sub> emission factor from the most recent stack test (lbs/1000 gallons). This factor is 17.28 lbs/1000 gallons based on a 2007 stack test;</p> <p>C = the monthly fuel consumption of natural gas in the two existing boilers (mmscf);</p> <p>D = NO<sub>x</sub> emission factor from the most recent stack test (lbs/mmscf). This factor is 72.56 lbs/mmscf based on a 2007 stack test;</p> <p>A rolling 12-month tally will be maintained to ensure compliance with the 1.00 tpy limit.</p>										
Work Practice	Process Material				Reference Test Method					
Type	Code	Description			Reference Test Method					
03	318	Fuel			Reference Test Method					
Parameter				Manufacturer Name/Model No.						
Code		Description			Manufacturer Name/Model No.					
Limit				Limit Units						
Upper		Lower			Code	Description				
1.00					38	Tons per year				
Averaging Method				Monitoring Frequency			Reporting Requirements			
Code	Description			Code	Description		Code	Description		
17	Annual maximum rolled monthly			05	Monthly		15	Annually (calendar)		

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## Section IV - Emission Unit Information (continued)

Emission Unit Compliance Certification <input type="checkbox"/> Continuation Sheet(s)										
Rule Citation										
Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause	
6	NYCRR	210								
X Applicable Federal Requirement <input type="checkbox"/> State Only Requirement						X Capping				
Emission Unit	Emission Point	Process	Emission Source	CAS No.			Contaminant Name			
U - 00003				NY075 - 00 - 5			PM-10s			
Monitoring Information										
<input type="checkbox"/> Continuous Emission Monitoring <input type="checkbox"/> Intermittent Emission Testing <input type="checkbox"/> Ambient Air Monitoring			<input type="checkbox"/> Monitoring of Process or Control Device Parameters as Surrogate <input checked="" type="checkbox"/> Work Practice Involving Specific Operations <input type="checkbox"/> Record Keeping/Maintenance Procedures							
Description										
<p>The facility is proposing a PM<sub>10</sub> emission cap of 0.14 tons per year to restrict the PM<sub>10</sub> emissions from Emission Unit U00003 through the curtailment of operation. 0.60 tpy PM<sub>10</sub> ERCs are created. The following formula will be used to calculate the monthly PM<sub>10</sub> emissions and to demonstrate compliance with this cap on a rolling 12-month basis:</p> $X = ((A \times B) + (C \times D)) / 2000$ <p>Where:</p> <p>X = monthly facility PM<sub>10</sub> emissions (tons);</p> <p>A = the monthly fuel consumption of number 2 oil in the two existing boilers (00007 and 00008) (1000 gallons);</p> <p>B = 2.38 lbs PM<sub>10</sub> / 1000 gallons burned (based on EPA's AP-42 emission factor);</p> <p>C = the monthly fuel consumption of natural gas in the two existing boilers (mmscf);</p> <p>D = 7.6 lbs PM<sub>10</sub> / million cubic feet burned (based on EPA's AP-42 emission factor);</p> <p>A rolling 12-month tally will be maintained to ensure compliance with the 0.14 tpy limit.</p>										
Work Practice	Process Material				Reference Test Method					
Type	Code	Description			Reference Test Method					
03	318	Fuel								
Parameter				Manufacturer Name/Model No.						
Code		Description			Manufacturer Name/Model No.					
Limit				Limit Units						
Upper		Lower			Code	Description				
0.14					38	Tons per year				
Averaging Method			Monitoring Frequency			Reporting Requirements				
Code	Description		Code	Description		Code	Description			
17	Annual maximum rolled monthly		05	Monthly		15	Annually (calendar)			

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2	-	6	0	0	7	-	0	0	2	5	9

**Section IV - Emission Unit Information (continued)**

Emission Unit Compliance Certification <input type="checkbox"/> Continuation Sheet(s)										
Rule Citation										
Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause	
6	NYCRR	202-1								
<input checked="" type="checkbox"/> Applicable Federal Requirement						<input type="checkbox"/> State Only Requirement		<input checked="" type="checkbox"/> Capping		
Emission Unit	Emission Point	Process	Emission Source	CAS No.			Contaminant Name			
U - 00003		005	00007 00008	NY210 - 00 - 0			Oxides of Nitrogen			
		006	00007 00008							
Monitoring Information										
<input type="checkbox"/> Continuous Emission Monitoring				<input type="checkbox"/> Monitoring of Process or Control Device Parameters as Surrogate						
<input checked="" type="checkbox"/> Intermittent Emission Testing				<input type="checkbox"/> Work Practice Involving Specific Operations						
<input type="checkbox"/> Ambient Air Monitoring				<input type="checkbox"/> Record Keeping/Maintenance Procedures						
Description										
Once during the term of the Title V permit, the facility will perform a NOx emission stack test, as per Department approved test protocol, to determine NOx emission factors of the boilers.										
Work Practice	Process Material				Reference Test Method					
Type	Code	Description			40 CFR 60 Appendix A					
Parameter				Manufacturer Name/Model No.						
Code		Description								
Limit				Limit Units						
Upper		Lower		Code	Description					
Averaging Method			Monitoring Frequency			Reporting Requirements				
Code	Description		Code	Description		Code	Description			
08	1-hour average		17	Once during the term of the permit		15	Annually			

# New York State Department of Environmental Conservation Air Permit Application



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2	-	6	0	0	7	-	0	0	2	5	9

## Section IV - Emission Unit Information (continued)

Emission Unit Compliance Certification <input type="checkbox"/> Continuation Sheet(s)										
Rule Citation										
Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause	
6	NYCRR	202-1								
X Applicable Federal Requirement <input type="checkbox"/> State Only Requirement						X Capping				
Emission Unit	Emission Point	Process	Emission Source	CAS No.			Contaminant Name			
U - 00003		005	00007 00008	NY275 - 00 - 5			PM-10s			
		006	00007 00008							
Monitoring Information										
<input type="checkbox"/> Continuous Emission Monitoring <input checked="" type="checkbox"/> Intermittent Emission Testing <input type="checkbox"/> Ambient Air Monitoring				<input type="checkbox"/> Monitoring of Process or Control Device Parameters as Surrogate <input type="checkbox"/> Work Practice Involving Specific Operations <input type="checkbox"/> Record Keeping/Maintenance Procedures						
Description										
Once during the term of the Title V permit, the facility will perform a PM10 emission stack test, as per Department approved test protocol, to determine PM10 emission factors of the boilers.										
<b>Work Practice</b>										
Type	Code	Description				Reference Test Method				
						40 CFR 60 Appendix A				
<b>Parameter</b>										
Code	Description				Manufacturer Name/Model No.					
<b>Limit</b>										
Upper	Limit			Lower	Code	Limit Units				
						Description				
<b>Averaging Method</b>										
Code	Description			Code	Monitoring Frequency			Code	Reporting Requirements	
08	1-hour average			17	Once during the term of the permit			15	Annually	

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Section IV - Emission Unit Information (continued)

Determination of Non-Applicability (Title V Only) <input type="checkbox"/> Continuation Sheet(s)									
Rule Citation									
Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
Emission Unit	Emission Point	Process	Emission Source			<input type="checkbox"/> Applicable Federal Requirement <input type="checkbox"/> State Only Requirement			
-									
Description									
Rule Citation									
Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause
Emission Unit	Emission Point	Process	Emission Source			<input type="checkbox"/> Applicable Federal Requirement <input type="checkbox"/> State Only Requirement			
-									
Description									
Process Emissions Summary <input type="checkbox"/> Continuation Sheet(s)									
EMISSION UNIT	-								
CAS No.	Contaminant Name			% Thruput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined	
-	-								
PTE			Standard Units	PTE How Determined		Actual			
(lbs/hr)	(lbs/yr)	(standard units)				(lbs/hr)	(lbs/yr)		
EMISSION UNIT	-								
CAS No.	Contaminant Name			% Thruput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined	
-	-								
PTE			Standard Units	PTE How Determined		Actual			
(lbs/hr)	(lbs/yr)	(standard units)				(lbs/hr)	(lbs/yr)		
EMISSION UNIT	-								
CAS No.	Contaminant Name			% Thruput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined	
-	-								
PTE			Standard Units	PTE How Determined		Actual			
(lbs/hr)	(lbs/yr)	(standard units)				(lbs/hr)	(lbs/yr)		

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**Section IV - Emission Unit Information (continued)**

EMISSION UNIT		Emission Unit Emissions Summary <input type="checkbox"/> Continuation Sheet(s)								
U	-	0	0	0	0	3				
CAS No.		Contaminant Name								
NY210 - 00 - 0		Oxides of Nitrogen								
		PTE Emissions		Actual						
ERP (lbs/yr)		(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)					
2,000		12.02	2,000							
CAS No.		Contaminant Name								
NY275 - 00 - 5		PM-10s								
		PTE Emissions		Actual						
ERP (lbs/yr)		(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)					
275		1.66	275							
CAS No.		Contaminant Name								
		PTE Emissions		Actual						
ERP (lbs/yr)		(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)					
CAS No.		Contaminant Name								
		PTE Emissions		Actual						
ERP (lbs/yr)		(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)					

Compliance Plan <input type="checkbox"/> Continuation Sheet(s)												
For any emission units which are <u>not in compliance</u> at the time of permit application, the applicant shall complete the following												
Consent Order			Certified progress reports are to be submitted every 6 months beginning ____ / ____ / ____									
Emission Unit	Process	Emission Source	Applicable Federal Requirement									
			Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
-												
Remedial Measure / Intermediate Milestones										R/I	Date Scheduled	

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**Section IV - Emission Unit Information (continued)**

Request for Emission Reduction Credits <input type="checkbox"/> Continuation Sheet(s)														
EMISSION UNIT		U	-	0	0	0	0	3						
Emission Reduction Description														
Boiler operations from emission sources 00007 and 00008 under emission unit U00003 will be curtailed upon operation of the new cogeneration plant. Total NOx emissions from U00003 are proposed to be capped at 1.00 tpy, creating 3.93 tpy NOx ERCs. Total PM <sub>10</sub> emissions from U00003 are proposed to be capped at 0.14 tpy, creating 0.60 tpy PM <sub>10</sub> ERCs. These ERCs are being used as internal offsets in the netting analyses per 231-6.2 and 231-8.2 to show that the net emission increase of the proposed facility modification is below the significant net emission increase thresholds for NOx and PM <sub>10</sub> and as such, the modification does not result in a NSR major modification and is not subject to NANSR or PSD.														
Contaminant Emission Reduction Data														
Baseline Period <u>01 / 01 / 2007</u> to <u>12 / 31 / 2008</u>						Date		Reduction Method						
						<u>07 / 18 / 2012</u>		02-Curtailment of operation						
CAS No.				Contaminant Name				ERC (lbs/yr)						
								Netting		Offset				
NY210		- 00 - 0		Oxides of Nitrogen				7,863.9						
NY275		- 00 - 5		PM-10s				1,202.2						
Facility to Use Future Reduction														
Name		NYC-DOC-Rikers Island				APPLICATION ID								
						2 - 6 0 0 7 - 0 0 2 5 9 / 0 0 0 3 3								
Location Address 17-25 Hazen Street, East Elmhurst														
X City / <input type="checkbox"/> Town / <input type="checkbox"/> Village			State			New York			Zip			11370		

Use of Emission Reduction Credits <input type="checkbox"/> Continuation Sheet(s)														
EMISSION UNIT		U	-	0	0	0	1	1						
Proposed Project Description														
Operation of a new cogeneration plant consisting of two new 7.5 MW natural gas-fired simple cycle gas combustion turbines (CTGs) equipped with duct firing heat recovery steam generators (HRSGs).														
Contaminant Emissions Increase Data														
CAS No.		Contaminant Name				PEP (lbs/yr)								
NY210		- 00 - 0		Oxides of Nitrogen				83,999.2						
NY275		- 00 - 5		PM-10s				31,545.8						
Statement of Compliance														
X All facilities under the ownership of this "ownership/firm" are operating in compliance with all applicable requirements and state regulations including any compliance certification requirements under Section 114(a)(3) of the Clean Air Act Amendments of 1990, or are meeting the schedule of a consent order.														
Source of Emission Reduction Credit - Facility														
Name		PERMIT ID												
		2 - 6 0 0 7 - 0 0 2 5 9 / 0 0 0 3 3												
Location Address 17-25 Hazen Street, East Elmhurst														
X City / <input type="checkbox"/> Town / <input type="checkbox"/> Village			State			New York			Zip			11370		
Emission Unit	CAS No.		Contaminant Name				ERC (lbs/yr)							
							Netting		Offset					
U-00003	NY210 - 00 - 0		Oxides of Nitrogen				7,863.9							
U-00003	NY275 - 00 - 5		PM-10s				1,202.2							

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**Section IV - Emission Unit Information**

Emission Unit Description <input type="checkbox"/> Continuation Sheet(s)											
EMISSION UNIT	U	-	0	0	0	1	1				
This emission unit is comprised of the cogeneration plant equipment, which includes two new 7.5 MW simple cycle natural gas-fired turbines equipped with duct firing heat recovery steam generators.											

Building <input type="checkbox"/> Continuation Sheet(s)						
Building	Building Name			Length (ft)	Width (ft)	Orientation
15	Cogeneration Plant					

Emission Point <input type="checkbox"/> Continuation Sheet(s)										
EMISSION PT.	U	0	0	2	9					
Ground Elev. (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section					
15	150	107	60		Length (in)	Width (in)				
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (KM)	NYTM (N) (KM)	Building	Distance to Property Line (ft)	Date of Removal				
		593.6	4516.6	15						

Emission Point <input type="checkbox"/> Continuation Sheet(s)										
EMISSION PT.	U	0	0	3	0					
Ground Elev. (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section					
15	100	57	66		Length (in)	Width (in)				
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (KM)	NYTM (N) (KM)	Building	Distance to Property Line (ft)	Date of Removal				
		593.6	4516.6	15						

Emission Point <input type="checkbox"/> Continuation Sheet(s)										
EMISSION PT.	U	0	0	3	1					
Ground Elev. (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section					
15	150	107	60		Length (in)	Width (in)				
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (KM)	NYTM (N) (KM)	Building	Distance to Property Line (ft)	Date of Removal				
		593.6	4516.6	15						

Emission Point <input type="checkbox"/> Continuation Sheet(s)										
EMISSION PT.	U	0	0	3	2					
Ground Elev. (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section					
15	100	57	66		Length (in)	Width (in)				
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (KM)	NYTM (N) (KM)	Building	Distance to Property Line (ft)	Date of Removal				
		593.6	4516.6	15						

**Section IV - Emission Unit Information**

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Emission Source/Control <input type="checkbox"/> Continuation Sheet(s)									
Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.		
ID	Type				Code	Description			
00029	C	6/1/2011	7/18/2012				SOLAR Taurus 70-10301S		
Design Capacity		Design Capacity Units			Waste Feed		Waste Type		
7.5	216	megawatts							
Emission Source/Control <input type="checkbox"/> Continuation Sheet(s)									
Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.		
ID	Type				Code	Description			
00030	C	6/1/2011	7/18/2012				SOLAR Taurus 70-10301S		
Design Capacity		Design Capacity Units			Waste Feed		Waste Type		
7.5	216	megawatts							
Emission Source/Control <input type="checkbox"/> Continuation Sheet(s)									
Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.		
ID	Type				Code	Description			
00029	C	6/1/2011	7/18/2012				Rentech		
Design Capacity		Design Capacity Units			Waste Feed		Waste Type		
38.2	25	million Btu per hour							
Emission Source/Control <input type="checkbox"/> Continuation Sheet(s)									
Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.		
ID	Type				Code	Description			
00030	C	6/1/2011	7/18/2012				Rentech		
Design Capacity		Design Capacity Units			Waste Feed		Waste Type		
38.2	25	million Btu per hour							

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2	-	6	0	0	7	-	0	0	2	5	9

**Section IV - Emission Unit Information (continued)**

Process Information <input type="checkbox"/> Continuation Sheet(s)																		
EMISSION UNIT						U	-	0	0	0	1	1	PROCESS			0	0	7
Description																		
Firing natural gas in the cogeneration plant.																		
Source Classification Code (SCC)			Total Thruput				Thruput Quantity Units											
			Quantity/Hr		Quantity/Yr		Code		Description									
2-03-002-03																		
<input type="checkbox"/> Confidential <input type="checkbox"/> Operating at Maximum Capacity <input type="checkbox"/> Activity with Insignificant Emissions			Operating Schedule				Building		Floor/Location									
			Hrs/Day		Days/Yr													
			24		365		15											
Emission Source/Control Identifier(s)																		
00029			00030			00031			00032									

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2	-	6	0	0	7	-	0	0	2	5	9

Section IV - Emission Unit Information (continued)

Emission Unit	Emission Point	Process	Emission Source	Emission Unit Applicable Federal Requirements X Continuation Sheet(s)									
				Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
U - 00011				6	NYCRR	227	1.3						
U - 00011		007	00029	6	NYCRR	227	2.1	(a)	(5)				
U - 00011		007	00029	6	NYCRR	227	2.4	(e)	(1)	(i)			
U - 00011		007	00029	6	NYCRR	227	2.6	(a)	(5)	(i)			
U - 00011		007	00029	6	NYCRR	227	2.6	(c)	(1)				
U - 00011		007	00029	6	NYCRR	227	2.6	(c)	(2)	(ii)			
U - 00011		007	00029	6	NYCRR	227	2.6	(c)	(3)				
U - 00011		007	00030	6	NYCRR	227	2.1	(a)	(5)				
U - 00011		007	00030	6	NYCRR	227	2.4	(e)	(1)	(i)			
U - 00011		007	00030	6	NYCRR	227	2.6	(a)	(5)				
U - 00011		007	00030	6	NYCRR	227	2.6	(c)	(1)				
U - 00011		007	00030	6	NYCRR	227	2.6	(c)	(2)	(ii)			
U - 00011		007	00030	6	NYCRR	227	2.6	(c)	(3)				
U - 00011		007	00029	40	CFR	60	4300						
U - 00011		007	00029	40	CFR	60	4305	(a)					
U - 00011		007	00029	40	CFR	60	4320	(a)					
U - 00011		007	00029	40	CFR	60	4320	(b)					
U - 00011		007	00029	40	CFR	60	4330	(a)					
U - 00011		007	00029	40	CFR	60	4333	(a)					
U - 00011		007	00029	40	CFR	60	4340	(a)					
U - 00011		007	00029	40	CFR	60	4365	(a)					
U - 00011		007	00029	40	CFR	60	4375	(b)					
U - 00011		007	00029	40	CFR	60	4400						
U - 00011		007	00030	40	CFR	60	4300						
U - 00011		007	00030	40	CFR	60	4305	(a)					
U - 00011		007	00030	40	CFR	60	4320	(a)					
U - 00011		007	00030	40	CFR	60	4320	(b)					
U - 00011		007	00030	40	CFR	60	4330	(a)					
U - 00011		007	00030	40	CFR	60	4333	(a)					
U - 00011		007	00030	40	CFR	60	4340	(a)					

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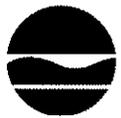
DEC ID											
2	-	6	0	0	7	-	0	0	2	5	9

Section IV - Emission Unit Information (continued)

Emission Unit	Emission Point	Process	Emission Source	Emission Unit Applicable Federal Requirements (continuation)									
				Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
U - 00011		007	00030	40	CFR	60	4365	(a)					
U - 00011		007	00030	40	CFR	60	4375	(b)					
U - 00011		007	00030	40	CFR	60	4400						
U - 00011				6	NYCRR	231	6.1	(b)					
U - 00011				6	NYCRR	231	6.2						
U - 00011				6	NYCRR	231	8.1	(b)					
U - 00011				6	NYCRR	231	8.2						
U - 00011				6	NYCRR	231	10.1						
U - 00011				6	NYCRR	231	10.4						
U - 00011				6	NYCRR	201	7	3					

Emission Unit	Emission Point	Process	Emission Source	Emission Unit State Only Requirements <input type="checkbox"/> Continuation Sheet(s)									
				Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
-													
-													
-													

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**Section IV - Emission Unit Information**

Emission Unit Compliance Certification <input type="checkbox"/> Continuation Sheet(s)																																																																																																																																					
Rule Citation																																																																																																																																					
Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause																																																																																																																												
6	NYCRR	201	7.3																																																																																																																																		
X Applicable Federal Requirement <input type="checkbox"/> State Only Requirement						X Capping																																																																																																																															
Emission Unit	Emission Point	Process	Emission Source	CAS No.			Contaminant Name																																																																																																																														
U - 00011				NY210 - 00 - 0			Oxides of Nitrogen																																																																																																																														
Monitoring Information																																																																																																																																					
<input type="checkbox"/> Continuous Emission Monitoring <input type="checkbox"/> Intermittent Emission Testing <input type="checkbox"/> Ambient Air Monitoring			<input type="checkbox"/> Monitoring of Process or Control Device Parameters as Surrogate <input checked="" type="checkbox"/> Work Practice Involving Specific Operations <input type="checkbox"/> Record Keeping/Maintenance Procedures																																																																																																																																		
Description																																																																																																																																					
The facility is proposing a NO <sub>x</sub> emission cap of 42.00 tons per year to restrict the NO <sub>x</sub> emissions from Emission Unit U-00011. The following formula will be used to calculate the monthly NO <sub>x</sub> emissions and to demonstrate compliance with this cap on a rolling 12-month basis: $X = [(A \times B) + (C \times D)] / 2000$ Where: X = monthly NO <sub>x</sub> emissions (tons); A = the monthly fuel consumption of natural gas in the two new gas turbines (00029 and 00030) (mmscf); B = NO <sub>x</sub> emission factor from operation of the turbines from the most recent stack test (lbs/mmscf). This factor is 44.29 lbs/mmscf based on a natural gas HHV of 1030 Btu/scf. C = the monthly fuel consumption of natural gas in the two new duct burner HRSGs (00031 and 00032) (mmscf); D = NO <sub>x</sub> emission factor from operation of the duct burners from the most recent stack test (lbs/mmscf). This factor is 72.10 lbs/mmscf based on a natural gas HHV of 1030 Btu/scf. A rolling 12-month tally will be maintained to ensure compliance with the 42.00 tpy limit.																																																																																																																																					
<table border="1"> <tr> <td>Work Practice</td><td colspan="5">Process Material</td><td colspan="5">Reference Test Method</td> </tr> <tr> <td>Type</td><td>Code</td><td colspan="4">Description</td><td colspan="5">Reference Test Method</td> </tr> <tr> <td>03</td><td>012</td><td colspan="4">Natural gas</td><td colspan="5">Reference Test Method</td> </tr> <tr> <td colspan="11">Parameter</td> </tr> <tr> <td colspan="2">Code</td><td colspan="4">Description</td><td colspan="5">Manufacturer Name/Model No.</td> </tr> <tr> <td colspan="11">Limit</td> </tr> <tr> <td colspan="2">Upper</td><td colspan="3">Limit</td><td colspan="2">Lower</td><td>Code</td><td colspan="4">Limit Units</td> </tr> <tr> <td colspan="2">42.00</td><td colspan="3"></td><td colspan="2"></td><td>38</td><td colspan="4">Tons per year</td> </tr> <tr> <td colspan="4">Averaging Method</td><td colspan="4">Monitoring Frequency</td><td colspan="3">Reporting Requirements</td> </tr> <tr> <td>Code</td><td colspan="3">Description</td><td>Code</td><td colspan="3">Description</td><td>Code</td><td colspan="2">Description</td> </tr> <tr> <td>17</td><td colspan="3">Annual maximum rolled monthly</td><td>05</td><td colspan="3">Monthly</td><td>15</td><td colspan="2">Annually (calendar)</td> </tr> </table>											Work Practice	Process Material					Reference Test Method					Type	Code	Description				Reference Test Method					03	012	Natural gas				Reference Test Method					Parameter											Code		Description				Manufacturer Name/Model No.					Limit											Upper		Limit			Lower		Code	Limit Units				42.00							38	Tons per year				Averaging Method				Monitoring Frequency				Reporting Requirements			Code	Description			Code	Description			Code	Description		17	Annual maximum rolled monthly			05	Monthly			15	Annually (calendar)	
Work Practice	Process Material					Reference Test Method																																																																																																																															
Type	Code	Description				Reference Test Method																																																																																																																															
03	012	Natural gas				Reference Test Method																																																																																																																															
Parameter																																																																																																																																					
Code		Description				Manufacturer Name/Model No.																																																																																																																															
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42.00							38	Tons per year																																																																																																																													
Averaging Method				Monitoring Frequency				Reporting Requirements																																																																																																																													
Code	Description			Code	Description			Code	Description																																																																																																																												
17	Annual maximum rolled monthly			05	Monthly			15	Annually (calendar)																																																																																																																												

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## Section IV - Emission Unit Information (continued)

Emission Unit Compliance Certification <input type="checkbox"/> Continuation Sheet(s)										
Rule Citation										
Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause	
6	NYCRR	201	7.3							
X Applicable Federal Requirement <input type="checkbox"/> State Only Requirement						X Capping				
Emission Unit	Emission Point	Process	Emission Source	CAS No.			Contaminant Name			
U - 00011				NY075 - 00 - 5			PM-10s			
Monitoring Information										
<input type="checkbox"/> Continuous Emission Monitoring <input type="checkbox"/> Intermittent Emission Testing <input type="checkbox"/> Ambient Air Monitoring			<input type="checkbox"/> Monitoring of Process or Control Device Parameters as Surrogate <input checked="" type="checkbox"/> Work Practice Involving Specific Operations <input type="checkbox"/> Record Keeping/Maintenance Procedures							
Description										
<p>The facility is proposing a PM<sub>10</sub> emission cap to restrict the PM<sub>10</sub> emissions from Emission Unit U-00011. The facility is proposing a NO<sub>x</sub> cap of 15.77 tons per year. The following formula will be used to calculate the monthly PM<sub>10</sub> emissions and to demonstrate compliance with this cap on a rolling 12-month basis:</p> $X = [(A \times B) + (C \times D)] / 2000$ <p>Where:</p> <p>X = monthly PM<sub>10</sub> emissions (tons);</p> <p>A = the monthly fuel consumption of natural gas in the two new gas turbines (00029 and 00030) (mmscf);</p> <p>B = PM<sub>10</sub> emission factor from operation of the turbines from the most recent stack test (lbs/mmscf). This factor is 19.57 lbs/mmscf based on a natural gas HHV of 1030 Btu/scf.</p> <p>C = the monthly fuel consumption of natural gas in the two new duct burner HRSGs (00031 and 00032) (mmscf);</p> <p>D = PM<sub>10</sub> emission factor from operation of the duct burners from the most recent stack test (lbs/mmscf). This factor is 10.30 lbs/mmscf based on a natural gas HHV of 1030 Btu/scf.</p> <p>A rolling 12-month tally will be maintained to ensure compliance with the 15.77 tpy limit.</p>										
Work Practice	Process Material					Reference Test Method				
Type	Code	Description				Reference Test Method				
03	012	Natural gas				Reference Test Method				
Parameter										
Code		Description				Manufacturer Name/Model No.				
Limit										
Upper		Lower		Code		Limit Units				
15.77				38		Tons per year				
Averaging Method				Monitoring Frequency			Reporting Requirements			
Code	Description			Code	Description		Code	Description		
17	Annual maximum rolled monthly			05	Monthly		15	Annually (calendar)		

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**Section IV - Emission Unit Information (continued)**

Emission Unit Compliance Certification <input type="checkbox"/> Continuation Sheet(s)										
Rule Citation										
Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause	
6	NYCRR	202-1								
<input checked="" type="checkbox"/> Applicable Federal Requirement					<input type="checkbox"/> State Only Requirement			<input type="checkbox"/> Capping		
Emission Unit	Emission Point	Process	Emission Source	CAS No.			Contaminant Name			
U - 00011		007	00029 00030	NY210 - 00 - 0			Oxides of Nitrogen			
Monitoring Information										
<input type="checkbox"/> Continuous Emission Monitoring <input checked="" type="checkbox"/> Intermittent Emission Testing <input type="checkbox"/> Ambient Air Monitoring				<input type="checkbox"/> Monitoring of Process or Control Device Parameters as Surrogate <input type="checkbox"/> Work Practice Involving Specific Operations <input type="checkbox"/> Record Keeping/Maintenance Procedures						
Description										
Once during the term of the Title V permit, the facility will perform a NOx emission stack test, as per Department approved test protocol, to determine NOx emission factors of the turbines.										
Work Practice	Process Material									
Type	Code	Description			Reference Test Method					
					40 CFR 60 Appendix A					
Parameter				Manufacturer Name/Model No.						
Code		Description								
Limit				Limit Units						
Upper		Lower		Code	Description					
Averaging Method				Monitoring Frequency			Reporting Requirements			
Code	Description			Code	Description		Code	Description		
08	1-hour average			17	Once during the term of the permit		15	Annually		

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## Section IV - Emission Unit Information (continued)

Emission Unit Compliance Certification <input type="checkbox"/> Continuation Sheet(s)										
Rule Citation										
Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause	
6	NYCRR	202-1								
X Applicable Federal Requirement <input type="checkbox"/> State Only Requirement					<input type="checkbox"/> Capping					
Emission Unit	Emission Point	Process	Emission Source	CAS No.			Contaminant Name			
U - 00011		007	00031 00032	NY210 - 00 - 0			Oxides of Nitrogen			
Monitoring Information										
<input type="checkbox"/> Continuous Emission Monitoring <input checked="" type="checkbox"/> Intermittent Emission Testing <input type="checkbox"/> Ambient Air Monitoring				<input type="checkbox"/> Monitoring of Process or Control Device Parameters as Surrogate <input type="checkbox"/> Work Practice Involving Specific Operations <input type="checkbox"/> Record Keeping/Maintenance Procedures						
Description										
Once during the term of the Title V permit, the facility will perform a NOx emission stack test, as per Department approved test protocol, to determine NOx emission factors of the duct burners.										
Work Practice Type	Process Material			Reference Test Method						
	Code	Description		40 CFR 60 Appendix A						
Parameter				Manufacturer Name/Model No.						
Code	Description									
Limit				Limit Units						
Upper	Lower		Code	Description						
Averaging Method				Monitoring Frequency			Reporting Requirements			
Code	Description			Code	Description		Code	Description		
08	1-hour average			17	Once during the term of the permit		15	Annually		

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**Section IV - Emission Unit Information (continued)**

Emission Unit Compliance Certification <input type="checkbox"/> Continuation Sheet(s)										
Rule Citation										
Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause	
6	NYCRR	202-1								
X Applicable Federal Requirement <input type="checkbox"/> State Only Requirement						<input type="checkbox"/> Capping				
Emission Unit	Emission Point	Process	Emission Source	CAS No.			Contaminant Name			
U - 00011		007	00029 00030	NY275 - 00 - 5			PM-10s			
Monitoring Information										
<input type="checkbox"/> Continuous Emission Monitoring <input checked="" type="checkbox"/> Intermittent Emission Testing <input type="checkbox"/> Ambient Air Monitoring					<input type="checkbox"/> Monitoring of Process or Control Device Parameters as Surrogate <input type="checkbox"/> Work Practice Involving Specific Operations <input type="checkbox"/> Record Keeping/Maintenance Procedures					
Description										
Once during the term of the Title V permit, the facility will perform a PM <sub>10</sub> emission stack test, as per Department approved test protocol, to determine PM <sub>10</sub> emission factors of the turbines.										
<b>Work Practice</b>										
Type	Code		Description			Reference Test Method				
						40 CFR 60 Appendix A				
<b>Parameter</b>										
Code		Description			Manufacturer Name/Model No.					
<b>Limit</b>										
Upper		Lower			Code	Limit Units				
						Description				
<b>Averaging Method</b>				<b>Monitoring Frequency</b>			<b>Reporting Requirements</b>			
Code	Description			Code	Description		Code	Description		
08	1-hour average			17	Once during the term of the permit		15	Annually		

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**Section IV - Emission Unit Information (continued)**

Emission Unit Compliance Certification <input type="checkbox"/> Continuation Sheet(s)										
Rule Citation										
Title	Type	Part	Sub Part	Section	Sub Division	Paragraph	Sub Paragraph	Clause	Sub Clause	
6	NYCRR	202-1								
X Applicable Federal Requirement <input type="checkbox"/> State Only Requirement						<input type="checkbox"/> Capping				
Emission Unit	Emission Point	Process	Emission Source	CAS No.			Contaminant Name			
U - 00001		007	00031 00032	NY275 - 00 - 5			PM-10s			
Monitoring Information										
<input type="checkbox"/> Continuous Emission Monitoring <input checked="" type="checkbox"/> Intermittent Emission Testing <input type="checkbox"/> Ambient Air Monitoring					<input type="checkbox"/> Monitoring of Process or Control Device Parameters as Surrogate <input type="checkbox"/> Work Practice Involving Specific Operations <input type="checkbox"/> Record Keeping/Maintenance Procedures					
Description										
Once during the term of the Title V permit, the facility will perform a PM <sub>10</sub> emission stack test, as per Department approved test protocol, to determine PM <sub>10</sub> emission factors of the duct burners.										
<b>Work Practice</b>										
Type	Code		Description			Reference Test Method				
						40 CFR 60 Appendix A				
<b>Parameter</b>										
Code		Description			Manufacturer Name/Model No.					
<b>Limit</b>										
Upper		Lower			Code	Limit Units				
						Description				
<b>Averaging Method</b>				<b>Monitoring Frequency</b>			<b>Reporting Requirements</b>			
Code	Description			Code	Description		Code	Description		
08	1-hour average			17	Once during the term of the permit		15	Annually		



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**Section IV - Emission Unit Information (continued)**

EMISSION UNIT		Emission Unit Emissions Summary <input type="checkbox"/> Continuation Sheet(s)			
U - 0 0 0 1 1					
CAS No.		Contaminant Name			
NY210 - 00 - 0		Oxides of Nitrogen			
		PTE Emissions		Actual	
ERP (lbs/yr)		(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
83,999.2		14.10	83,999.2		
CAS No.		Contaminant Name			
NY275 - 00 - 5		PM-10s			
		PTE Emissions		Actual	
ERP (lbs/yr)		(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
31,545.8		4.56	31,545.8		
CAS No.		Contaminant Name			
		PTE Emissions		Actual	
ERP (lbs/yr)		(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
CAS No.		Contaminant Name			
-					
		PTE Emissions		Actual	
ERP (lbs/yr)		(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)

Compliance Plan <input type="checkbox"/> Continuation Sheet(s)												
For any emission units which are <u>not in compliance</u> at the time of permit application, the applicant shall complete the following												
Consent Order			Certified progress reports are to be submitted every 6 months beginning ____ / ____ / ____									
			Applicable Federal Requirement									
Emission Unit	Process	Emission Source	Title	Type	Part	Sub Part	Section	Sub Division	Parag.	Sub Parag.	Clause	Sub Clause
-												
Remedial Measure / Intermediate Milestones										R/I	Date Scheduled	

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**Section IV - Emission Unit Information (continued)**

Use of Emission Reduction Credits <input type="checkbox"/> Continuation Sheet(s)											
EMISSION UNIT		U - 0 0 0 1 1									
Proposed Project Description											
Operation of a new cogeneration plant consisting of two new 7.5 MW natural gas-fired simple cycle gas combustion turbines (CTGs) equipped with duct firing heat recovery steam generators (HRSGs).											
Contaminant Emissions Increase Data											
CAS No.		Contaminant Name				PEP (lbs/yr)					
NY210 - 00 - 0		Oxides of Nitrogen				83,999.2					
NY275 - 00 - 5		PM-10s				31,545.8					
Statement of Compliance											
X All facilities under the ownership of this "ownership/firm" are operating in compliance with all applicable requirements and state regulations including any compliance certification requirements under Section 114(a)(3) of the Clean Air Act Amendments of 1990, or are meeting the schedule of a consent order.											
Source of Emission Reduction Credit - Facility											
Name		PERMIT ID									
		2 - 6 0 0 7 - 0 0 2 5 9 7 0 0 0 3 3									
Location Address 17-25 Hazen Street, East Elmhurst											
X City / <input type="checkbox"/> Town / <input type="checkbox"/> Village				State New York				Zip 11370			
Emission Unit	CAS No.			Contaminant Name			ERC (lbs/yr)				
							Netting		Offset		
U-00001	NY210 - 00 - 0			Oxides of Nitrogen			13,629.4				
U-00002	NY210 - 00 - 0			Oxides of Nitrogen			13,652.3				
U-00003	NY210 - 00 - 0			Oxides of Nitrogen			7,863.9				
				<b>TOTAL</b>			<b>35,145.6</b>				
U-00001	NY275 - 00 - 5			PM-10s			2,286.5				
U-00002	NY275 - 00 - 5			PM-10s			2,091.6				
U-00003	NY275 - 00 - 5			PM-10s			1,202.2				
				<b>TOTAL</b>			<b>5,580.3</b>				



**Attachment A**  
**List of Exempt Activities**

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**List of Exempt Activities (from NYCRR Part 201)**

Instructions for Completing Table			
<p>Applicants for Title V permits are required to provide a list of exempt activities in the application form. This includes all process or production units and other emission generating activities which are considered exempt as defined by 6 NYCRR Part 301-3.2. Completion of this table fulfills that requirement.</p> <p>To complete the table, provide the following information for each exempt activity that occurs at the facility defined by this application:</p> <p>a. The <u>approximate</u> number of each listed activity, and,</p> <p>b. For location of the activity enter the building ID(s) used in the main application form. Use the building name if a building ID(s) has not been assigned.</p> <p>If a listed activity does not occur at the facility, leave <u>blank</u>.</p>			
Combustion			
Rule Citation 201-3.2(c)	Description	No. of Activities (approx.)	Building Location
(1)	stationary or portable combustion installations where the furnace has a maximum rated heat input capacity <10mmBtu/hr burning fossil fuels, other than coal, and coal and wood fired stationary combustion units with a maximum heat input <1mmBtu/hr. - this includes unit space heaters, which burn waste oils as defined in 6 NYCRR Part 225-2 and generated on-site, alone or in conjunction with used oil generated by a do-it-yourself oil changer as defined in 6 NYCRR Subpart 374-2		
(2)	stationary or portable combustion installations located outside of any severe ozone non-attainment areas, where the furnace has a maximum rated heat input capacity <20 mmBtu/hr burning fossil fuels other than coal, where the construction of the combustion installation commenced before 6/8/89		
(3)(i)	diesel or natural gas powered stationary or portable internal combustion (IC) engines within any severe ozone non-attainment area having a maximum mechanical power rating <225bhp		
(3)(ii)	diesel or natural gas powered stationary or portable IC engines located outside of any severe ozone non-attainment areas having a maximum mechanical power rating <400 bhp		
(3)(iii)	gasoline powered IC engines having a maximum mechanical power rating <50bhp		
(4)	stationary or portable IC engines which are temporarily located at a facility for a period ≤30 days/calendar year, where the total combined maximum mechanical power rating for all affected units is <1000bhp		
(5)	gas turbines with a heat input at peak load <10mmBtu/hr		
(6)	emergency power generating units installed for use when the usual sources of heat, power, water and lighting are temporarily unobtainable, or which are installed to provide power <500 hrs/yr and excluding those units under contract w/ a utility to provide peak shaving generation to the grid	51	
Combustion-Related			
(7)	non-contact water cooling towers and water treatment systems for process cooling water and other water containers designed to cool, store or otherwise handle water that has not been in direct contact with gaseous or liquid process streams		

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**List of Exempt Activities (from NYCRR Part 201)**

<b>Agricultural</b>			
<b>Rule Citation 201-3.2(c)</b>	<b>Description</b>	<b>No. of Activities (approx.)</b>	<b>Building Location</b>
(8)	feed and grain milling, cleaning, conveying, drying and storage operations including grain storage silos, where such silos exhaust to an appropriate emission control device, excluding grain terminal elevators with permanent storage capacities over 2.5 million US bushels, and grain storage elevators with capacities above 1 million bushels		
(9)	equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators and electrical power generating equipment		
<b>Commercial-Food Service Industries</b>			
(10)	flour silos at bakeries, provided all such silos are exhausted through an appropriate emission control device		
(11)	emissions from flavorings, added to a food product where such flavors are manually added to the product		
<b>Commercial-Graphic Arts</b>			
(12)	screen printing inks/coatings or adhesives which are applied by a hand-held squeegee (i.e. one that is not propelled thru the use of mechanical conveyance and is not an integral part of the screen printing process)		
(13)	graphic arts processes at facilities located outside the NYC metropolitan area whose facility-wide total emissions or VOC's from inks, coatings, adhesives, fountain solutions and cleaning solutions does not exceed 20 lbs/day		
(14)	graphic label and/or box labeling operations where the inks are applied by stamping or rolling		
(15)	graphic arts processes which are specifically exempted from regulation under Part 234 with regard to emissions of VOC's which are not given an A rating		
<b>Commercial-Other</b>			
(16)	gasoline dispensing sites with an annual thruput <120,000 gal located outside any severe non-attainment areas		
(17)	surface coating related operations which use less than 25 gal/mo of coating materials (paints) and cleaning solvents, combined, subject to the following: - the facility is located outside of severe ozone non-attainment area - -all abrasive cleaning and surface coating operations are performed in an enclosed building where such operations are exhausted into appropriate emission control devices		
(18)	abrasive cleaning operations which exhaust to an appropriate emission control device		
(19)	ultraviolet curing operations		
<b>Municipal/Public Health Related</b>			
(20)	ventilating systems for landfill gases, where the systems are vented directly to the atmosphere, and the ventilating system has been required by, and is operating under, the conditions of a valid Part 360 permit, or Order on Consent		

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List of Exempt Activities (from NYCRR Part 201)

Storage Vessels			
Rule Citation 201-3.2(c)	Description	No. of Activities (approx.)	Building Location
(21)	distillate and residual fuel oil storage tanks with storage capacities <300,000 bbls	14	
(22)	pressurized fixed roof tanks which are capable of maintaining a working pressure at all times to prevent emissions of VOC's to the outdoor atmosphere		
(23)	external floating roof tanks which are of welded construction and are equipped with a metallic-type shoe primary seal and a secondary seal from the top of the shoe seal to the tank wall		
(24)(i)	external floating roof tanks which are used for the storage of a petroleum or volatile organic liquid with a true vapor pressure <4.0 psi (27.6 kPa), are of welded construction and are equipped with a <i>metallic-type shoe seal</i>		
(24)(ii)	external floating roof tanks which are used for the storage of a petroleum or volatile organic liquid with a true vapor pressure <4.0 psi (27.6 kPa), are of welded construction and are equipped with a <i>liquid-mounted foam seal</i>		
(24)(iii)	external floating roof tanks which are used for the storage of a petroleum or volatile organic liquid with a true vapor pressure <4.0 psi (27.6 kPa), are of welded construction and are equipped with a <i>liquid-mounted liquid-filled type seal</i>		
(24)(iv)	external floating roof tanks which are used for the storage of a petroleum or volatile organic liquid with a true vapor pressure <4.0 psi (27.6 kPa), are of welded construction and are equipped with a <i>control equipment or device equivalent to those previously listed in items (24) (i) thru (iii)</i>		
(25)	storage tanks, with capacities <10,000 gal, except those subject to either Part 229 or Part 233		
(26)	horizontal petroleum storage tanks		
(27)	storage silos storing solid materials, provided all such silos are exhausted thru an appropriate emission control device		
Industrial			
(28)	processing equipment at existing sand and gravel and stone crushing plants which were installed or constructed before 8/31/83, where water is used other than for dust suppression, such as wet conveying, separating and washing		
(29)(i)	all processing equipment at sand and gravel mines or quarries that <i>permanent or fixed installations with a maximum rated processing capacity ≤25 tph of minerals</i>		
(29)(ii)	all processing equipment at sand and gravel mines or quarries that <i>mobile (portable) installations with a maximum rated processing capacity ≤150 tph of minerals</i>		
(30)	mobile (portable) stone crushers with maximum rated capacities ≤150 tph of minerals which are located at nonmetallic mineral processing operations		
(31)	surface coating operations which are specifically exempted from regulation under Part 228, with regard to emissions of VOC's which are not given an A rating		
(32)	pharmaceutical tablet branding operations		
(33)	thermal packaging operations, including but not limited to, thermal image labelling, blister packing, shrink wrapping, shrink banding, and carton gluing		

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List of Exempt Activities (from NYCRR Part 201)

Industrial (continued)			
Rule Citation	Description	No. of Activities (approx.)	Building Location
201-3.2(c)			
(34)	powder coating operations		
(35)	all tumblers used for the cleaning and/or deburring of metal products without abrasive blasting		
(36)	presses used exclusively for molding or extruding plastics except where halogenated carbon compounds or hydrocarbon solvents are used as foaming agents		
(37)	concrete batch plants where the cement weigh hopper and all bulk storage silos are exhausted thru fabric filters, and the batch drop point is controlled by a shroud or other emission control device		
(38)	cement storage operations where materials are transported by screw or bucket conveyors		
(39)(i)	non-vapor phase cleaning equipment with an open surface area $\leq 11$ sq ft and an internal volume $\leq 93$ gal or, having an organic solvent loss $\leq 3$ gal/day		
(39)(ii)	non-vapor phase cleaning equipment using only organic solvents with an initial boiling point $\geq 300^\circ\text{F}$ at atmospheric pressure		
(39)(iii)	non-vapor phase cleaning equipment using materials with a VOC content $\leq 2\%$ by volume		
Miscellaneous			
(40)	ventilating and exhaust systems for laboratory operations		
(41)	exhaust or ventilating systems for the melting of gold, silver, platinum, and other precious metals		
(42)	exhaust systems for paint mixing, transfer, filling or sampling and/or solvent storage rooms or cabinets, provided the paints stored within these locations are stored in closed containers when not is use		
(43)	exhaust systems for solvent transfer, filling or sampling and/or solvent storage rooms provided the solvent stored within these locations are stored in closed containers when not is use		
(44)	research and development activities, including both stand-alone and activities within a major stationary source, until such time as the Administrator completes a rulemaking to determine how the permitting program should be constructed for these activities		
(45)	the application of odor counteractants and/or neutralizers		

**Attachment B**  
**Plot Plan**



**Attachment C**  
**Backup Emission Calculations**

<b>TABLE 1</b>							
<b>NYC-DOC-Rikers Island</b>							
<b>Existing Facility Potential - to - Emit (PTE) Emission Calculations</b>							
	NG HHV:	1030 Btu/scf			Operating hrs:	8760	
	#2 Oil HHV:	138,000 Btu/gal					
<b>U00001: Emission Sources: 00001, 00002, 00003, 00004</b>							
4 boilers							
96 mmBtu/hr each							
250 mmBtu/hr total total firing rate (permit limit)							
	Natural Gas			#2 Oil			
Pollutant	Emission Factor (lbs/mmscf)	Emissions (lbs/yr)	Emissions (tpy)	Emission Factor (lbs/10 <sup>3</sup> gals)	Emissions (lbs/yr)	Emissions (tpy)	MAX (tpy) <sup>2</sup>
NOx <sup>1</sup>	123.6	262,800	131.40	22.08	350,400	175,200	175.20
CO	84	178,602	89.30	5	79,348	39,674	89.30
VOC	5.5	11,694	5.85	0.34	5,396	2,698	5.85
SO2	0.6	1,276	0.64	28.4	450,696	225,348	225.35
PM10	7.6	16,159	8.08	2.38	37,770	18,885	18.88
PM2.5	7.6	16,159	8.08	2.13	33,802	16,901	16.90
Lead	0.0005	1.06	0.00053	0.0012	19.71	0.010	0.010
CO2	120,396	255,986,806	127,993	22,501	357,087,592	178,544	178,544
CH4	2.27	4,828	2.41	0.91	14,484	7.24	7.24
N2O	0.23	483	0.24	0.18	2,897	1.45	1.45
<b>U00002: Emission Sources: 00005, 00006</b>							
2 boilers							
96 mmBtu/hr each							
192 mmBtu/hr total							
	Natural Gas			#2 Oil			
Pollutant	Emission Factor (lbs/mmscf)	Emissions (lbs/yr)	Emissions (tpy)	Emission Factor (lbs/10 <sup>3</sup> gals)	Emissions (lbs/yr)	Emissions (tpy)	MAX (tpy) <sup>2</sup>
NOx <sup>1</sup>	123.6	201,830	100.92	22.08	269,107	134,554	134.55
CO	84	137,166	68.58	5	60,939	30,470	68.58
VOC	5.5	8,981	4.49	0.34	4,144	2,072	4.49
SO2	0.6	980	0.49	28.4	346,134	173,067	173.07
PM10	7.6	12,410	6.21	2.38	29,007	14,504	14.50
PM2.5	7.6	12,410	6.21	2.13	25,960	12,980	12.98
Lead	0.0005	0.82	0.00041	0.0012	15.14	0.0076	0.0076
CO2	120,396	196,597,867	98,299	22,501	274,243,271	137,122	137,122
CH4	2.27	3,708	1.85	0.91	11,124	5.56	5.56
N2O	0.23	371	0.19	0.18	2,225	1.11	1.11
<b>U00003: Emission Sources 00007, 00008</b>							
2 boiler							
96 mmBtu/hr each							
192 mmBtu/hr total							
	Natural Gas			#2 Oil			
Pollutant	Emission Factor (lbs/mmscf)	Emissions (lbs/yr)	Emissions (tpy)	Emission Factor (lbs/10 <sup>3</sup> gals)	Emissions (lbs/yr)	Emissions (tpy)	MAX (tpy) <sup>2</sup>
NOx <sup>1</sup>	123.6	201,830	100.92	22.08	269,107	134,554	134.55
CO	84	137,166	68.58	5	60,939	30,470	68.58
VOC	5.5	8,981	4.49	0.34	4,144	2,072	4.49
SO2	0.6	980	0.49	28.4	346,134	173,067	173.07
PM10	7.6	12,410	6.21	2.38	29,007	14,504	14.50
PM2.5	7.6	12,410	6.21	2.13	25,960	12,980	12.98
Lead	0.0005	0.82	0.00041	0.0012	15.14	0.0076	0.0076
CO2	120,396	196,597,867	98,299	22,501	274,243,271	137,122	137,122
CH4	2.27	3,708	1.85	0.91	11,124	5.56	5.56
N2O	0.23	371	0.19	0.18	2,225	1.11	1.11
<b>Notes:</b>							
1. NOx PTEs are based on the NOx RACT limits of 0.12 lbs/mmBtu on natural gas and 0.16 lbs/mmBtu on #2 Oil.							
CO, VOC, SO2, PM10, PM2.5, and Lead PTEs are obtained from Federal AP-42 emission factors.							
2. Annual PTE emissions assume 8,760 hours of operation on either natural gas or fuel oil.							
<b>U00009: Spray Paint Booth: Emission Source: 0000P</b>							
Pollutant					Emissions (tpy) <sup>(1)</sup>		
VOC					2.5		
<b>Notes:</b>							
1. PTE emission rate obtained from the latest Title V permit. There are no emissions from the other pollutants.							

<b>TABLE 1</b>						
<b>NYC-DOC-Rikers Island</b>						
<b>Existing Facility Potential - to - Emit (PTE) Emission Calculations</b>						
U0010: 19 generators: Emission Sources: 00010, 00011, 00012, 00013, 00014, 00015, 00016, 00017, 00018, 00019, 00020, 00021, 00022, 00023, 00024, 00025, 00026, 00027, 00028.						
No. of Gens.	Output (KW)	TOTAL Output (KW)				
4	1100	4400				
2	800	1600				
3	900	2700				
1	625	625				
9	1150	10350				
		<b>19675 TOTAL KW</b>				
		<b>26384.61 Total hP</b>				
Pollutant	Emission Factor (lbs/hp-hr) <sup>1</sup>	Emissions				
		(lbs/hr)	Annual hrs	(lbs/yr)	(tpy)	
NOx	See (a) below	313	143.62	45000	22.5	
CO	5.50E-03	145		20,841	10.42	
VOC	6.42E-04	17		2,431	1.22	
SO2	0.001618	43		6,131	3.07	
PM10	0.0007	18		2,653	1.33	
PM2.5	0.0007	18		2,653	1.33	
Lead			ND*			
CO2	1.34	35,321		5,072,799	2,536	
CH4	0.000054	1.43		206	0.10	
N2O	0.000011	0.29		41	0.02	
<b>Notes:</b>						
1. Criteria pollutant emission factors are from AP-42. GHG emission factors are from 40 CFR 98.						
* No data.						
<b>TOTAL Existing Facility PTE Emissions</b>						
Pollutant	TOTAL Facility Emissions (tpy)					
NOx	466.81					
CO	236.89					
VOC	18.54					
SO2	574.55					
PM10	49.22					
PM2.5	44.19					
Lead	0.025					
CO2	455,323					
CH4	18.47					
N2O	3.69					
CO2e	461,126					
<b>(a): PLM unit NOx lb/hr emission limits in the latest Title V permit</b>						
Source	kW	NOx Emission				
		Factor (g/hp-hr)	Emissions (lbs/hr)	PLM Annual hrs	Emissions (lbs/yr)	Emissions (tpy)
00010	1100	7.7	25	143.62	3596.42	1.80
00011	1100	7.0	23	143.62	3269.48	1.63
00012	625	7.5	14	143.62	1990.35	1.00
00013	900	7.4	20	143.62	2827.88	1.41
00014	800	7.8	18	143.62	2649.55	1.32
00015	800	8.1	19	143.62	2751.45	1.38
00016	900	5.9	16	143.62	2254.66	1.13
00017	900	3.5	9	143.62	1337.51	0.67
00018	1100	6.9	22	143.62	3222.77	1.61
00019	1100	7.0	23	143.62	3269.48	1.63
00020	1150	6.9	23	143.62	3369.26	1.68
00021	1150					
00022	1150	7.0	24	143.62	3418.09	1.71
00023	1150					
00024	1150	7.7	26	143.62	3759.90	1.88
00025	1150	6.6	22	143.62	3222.77	1.61
00026	1150					
00027	1150	8.3	28	143.62	4052.88	2.03
00028	1150					
<b>TOTAL</b>	<b>19675</b>		<b>313.27</b>			<b>22.50</b>

<b>TABLE 2</b>											
<b>NYC-DOC-Rikers Island</b>											
<b>Cogeneration Plant Emissions</b>											
Emission Unit U00011. Emission Sources 00029,00030, 00031, and 00032.											
No.	Scenarios	# of Turbines	% Turbine Loaded	Turbine hours	# of Duct Burners	% Duct Burner Loaded	DB Hours				
1	Winter Condition	2	0F;100%	2117	2	0F;100%	1847				
2					2	0F;75%	521				
3					2	0F;50%	166				
4	Summer Condition	2	100F;100%	87	NA	NA	NA				
5	Spring/Fall Condition	2	59F;100%	5130	2	59F;100%	160				
6		2	59F;<75%	1426	2	59F;75%	504				
7					2	59F;50%	1545				
<b>TOTAL HOURS</b>				8760			4743				
NA = not applicable. Duct burners not expected to operate in the summer months.											
<b>Criteria Pollutants</b>							<b>Greenhouse Gases<sup>2</sup></b>				
		NOx	CO	VOC	PM10	PM2.5	SO2	CO2	CH4	N2O	CO2e
<b>Turbine Emissions (lbs/hr)</b>											
1		8.6	10.8	0.62	3.8	3.8	0.0	23,247	0.44	0.04	
2		---	---	---	---	---	---	---	---	---	
3		---	---	---	---	---	---	---	---	---	
4		6.4	8	0.46	2.9	2.9	0.0	17,589	0.33	0.03	
5		7.4	9.4	0.54	3.3	3.3	0.0	20,187	0.38	0.04	
6		6	7.6	0.44	2.7	2.7	0.0	16,381	0.31	0.03	
7		---	---	---	---	---	---	---	---	---	
<b>Duct Burner Emissions (lbs/hr)</b>											
1		5.03	5.74	0.32	0.72	0.7	0.98	8,393	0.16	0.02	
2		3.77	4.31	0.24	0.54	0.5	0.74	6,294	0.12	0.01	
3		2.51	2.87	0.16	0.36	0.4	0.49	4,196	0.08	0.01	
4		---	---	---	---	---	---	---	---	---	
5		5.35	6.11	0.34	0.76	0.8	0.78	8,930	0.17	0.02	
6		4.01	4.58	0.26	0.57	0.6	0.59	6,698	0.13	0.01	
7		2.67	3.06	0.17	0.38	0.4	0.39	4,465	0.08	0.01	
<b>Total Emissions (tons/yr)</b>											
1		13.74	16.74	0.95	4.66	4.66	0.93	32,357	0.61	0.06	
2		0.98	1.12	0.06	0.14	0.14	0.19	1,640	0.03	0.00	
3		0.21	0.24	0.01	0.03	0.03	0.04	348	0.01	0.00	
4		0.28	0.35	0.02	0.12	0.12	0.00	765	0.01	0.00	
5		19.41	24.60	1.41	8.48	8.48	0.11	52,493	0.99	0.10	
6		5.29	6.57	0.38	2.04	2.04	0.16	13,367	0.25	0.03	
7		2.07	2.36	0.13	0.30	0.30	0.30	3,449	0.07	0.01	
<b>TOTAL ANNUAL (tpy)</b>		<b>41.98</b>	<b>51.98</b>	<b>2.98</b>	<b>15.77</b>	<b>15.77</b>	<b>1.74</b>	<b>104,421</b>	<b>1.97</b>	<b>0.20</b>	
<b>Start-up/Shut-down</b>		<b>0.023</b>	<b>2.00</b>	<b>0.11</b>							
<b>Total tpy</b>		<b>42.00</b>	<b>53.98</b>	<b>3.09</b>	<b>15.77</b>	<b>15.77</b>	<b>1.74</b>	<b>104,421</b>	<b>1.97</b>	<b>0.20</b>	<b>104,523</b>
<b>Total lbs/yr</b>		<b>83,999.2</b>			<b>31,545.8</b>						
<b>Notes:</b>											
1. Turbine and Duct Burner emissions are based on projected actual annual emissions.											
2. See Table 4 for maximum GHG emission rates.											

**TABLE 3**  
**NYC-DOC-Rikers Island**  
**Turbine Emission Rates at ISO Conditions**

Note: These cases are used to estimate projected actual annual conditions (for Table 2).

**Solar Taurus 70**

Short-Term Emissions (per unit)								
Case No.		1	2	3	4	5	6	
Fuel		Natural Gas						
Ambient Temperature (°F)		0	59	100	59	59	59	
Load		100%	100%	100%	100%	75%	50%	
Heat Input (MMBtu/hr, LHV)		90.4	78.5	68.4	78.5	63.7	51.4	
Heat Input (MMBtu/hr, HHV)		99.4	86.4	75.2	86.4	70.1	56.5	
Gas Turbine Exhaust Flow (lb/hr)		231,894	211,172	186,338	211,172	173,691	135,748	
Combustion Turbine Emissions	Lb/MMBtu, HHV	NOx	0.0430	0.0430	0.0430	0.0430	0.0430	0.0420
		CO	--	--	--	--	--	--
		VOC	--	--	--	--	--	--
		PM10/PM2.5	0.019	0.019	0.019	0.019	0.019	0.019
		SO2	--	--	--	--	--	--
	Lb/hr	NOx	4.30	3.70	3.20	3.70	3.00	2.40
		CO	5.40	4.70	4.00	4.70	3.80	3.10
		VOC	0.31	0.27	0.23	0.27	0.22	0.18
		PM10/PM2.5	1.89	1.64	1.43	1.64	1.33	1.07
		SO2	0.01	0.01	0.01	0.01	0.01	0.01
	g/s	NOx	0.5418	0.4662	0.4032	0.4662	0.3780	0.3024
		CO	0.6804	0.5922	0.5040	0.5922	0.4788	0.3906
		VOC	0.0391	0.0340	0.0290	0.0340	0.0277	0.0227
		PM10/PM2.5	0.2381	0.2067	0.1801	0.2067	0.1677	0.1354
		SO2	0.0013	0.0013	0.0013	0.0013	0.0013	0.0013
	Duct Burner		Y	Y	Y	N	N	N
Fuel		Natural Gas						
Load		100%	100%	100%	0%	0%	100%	
Fuel Flow (lbs/hr)		1,570	1,670	1,719	0	0	0	
Heat Input (MMBtu/hr, LHV)		32.4	34.4	35.4	0.0	0.0	0.0	
Heat Input (MMBtu/hr, HHV)		35.9	38.2	39.3	0.0	0.0	0.0	
Duct Burner Emissions	Lb/MMBtu, HHV	NOx	0.070	0.070	0.070	0.070	0.070	0.070
		CO	0.080	0.080	0.080	0.080	0.080	0.080
		VOC	0.0045	0.0045	0.0045	0.0045	0.0045	0.0045
		PM10/PM2.5	0.010	0.010	0.010	0.010	0.010	0.010
		SO2	--	--	--	--	--	--
	Lb/hr	NOx	2.51	2.67	2.75	0.00	0.00	0.00
		CO	2.87	3.06	3.14	0.00	0.00	0.00
		VOC	0.16	0.17	0.18	0.00	0.00	0.00
		PM10/PM2.5	0.36	0.38	0.39	0.00	0.00	0.00
		SO2	0.49	0.39	0.39	0.00	0.00	0.00
	g/s	NOx	0.3166	0.3369	0.3466	0.0000	0.0000	0.0000
		CO	0.3618	0.3850	0.3961	0.0000	0.0000	0.0000
		VOC	0.0204	0.0217	0.0223	0.0000	0.0000	0.0000
		PM10/PM2.5	0.0452	0.0481	0.0495	0.0000	0.0000	0.0000
		SO2	0.0617	0.0491	0.0491	0.0000	0.0000	0.0000
	Stack Exhaust Temperature (°F)		275	292	275	292	311	305
Stack Exhaust Temperature (°K)		408.15	417.59	408.15	417.59	428.15	424.82	
Stack Exhaust Flow (lbs/hr)		233,464	212,842	188,057	211,172	173,691	135,748	
Stack Exhaust Flow (ACFM)		73,271	68,345	59,020	67,808	57,183	44,343	
Stack Exhaust Diameter (feet)		5	5	5	5	5	5	
Stack Exhaust Velocity (ft/s)		62.2	58.0	50.1	57.6	48.5	37.6	
Stack Exhaust Velocity (m/s)		18.957	17.682	15.270	17.544	14.794	11.473	
Stack Exhaust Emissions	Lb/hr	NOx	6.81	6.37	5.95	3.70	3.00	2.40
		CO	8.27	7.76	7.14	4.70	3.80	3.10
		VOC	0.47	0.44	0.41	0.27	0.22	0.18
		PM10/PM2.5	2.25	2.02	1.82	1.64	1.33	1.07
		SO2	0.50	0.40	0.40	0.40	0.20	0.20
	g/s	NOx	0.8584	0.8031	0.7498	0.4662	0.3780	0.3024
		CO	1.0423	0.9772	0.9001	0.5922	0.4788	0.3906
		VOC	0.0594	0.0557	0.0513	0.0340	0.0277	0.0227
		PM10/PM2.5	0.2833	0.2548	0.2296	0.2067	0.1677	0.1354
		SO2	0.0630	0.0504	0.0504	0.0504	0.0252	0.0252

Notes:

(1) PM10/PM2.5, NOx, CO, SO2, and UHC emission factors based on vendor data. VOC is 10% of UHC emissions.

**TABLE 4  
NYC-DOC-Rikers Island  
Greenhouse Gas (GHG) Emissions**

**Solar Taurus 70**

Short-Term Emissions (per unit)								
Case No.		1	2	3	4	5	6	
Fuel		Natural Gas						
Ambient Temperature (°F)		0	59	100	0	59	59	
Load		100%	100%	100%	100%	75%	50%	
Heat Input (MMBtu/hr, LHV)		90.4	78.5	68.4	90.4	63.7	51.4	
Heat Input (MMBtu/hr, HHV)		99.4	86.4	75.2	99.4	70.1	56.5	
Gas Turbine Exhaust Flow (lb/hr)		231,894	211,172	186,338	231,894	173,691	135,748	
Combustion Turbine Emissions	Lb/MMBtu, HHV	CO2	116.889	116.889	116.889	116.889	116.889	116.889
		CH4	2.20E-03	2.20E-03	2.20E-03	2.20E-03	2.20E-03	2.20E-03
		N2O	2.20E-04	2.20E-04	2.20E-04	2.20E-04	2.20E-04	2.20E-04
	Lb/hr	CO2	11,623.44	10,093.37	8,794.73	11,623.44	8,190.41	6,608.90
		CH4	0.22	0.19	0.17	0.22	0.15	0.12
		N2O	0.02	0.02	0.02	0.02	0.02	0.01
Duct Burner		Y	Y	Y	N	N	N	
Fuel		Natural Gas						
Load		100%	100%	100%	0%	0%	100%	
Fuel Flow (lbs/hr)		1,570	1,670	1,719	0	0	0	
Heat Input (MMBtu/hr, LHV)		32.4	34.4	35.4	0.0	0.0	0.0	
Heat Input (MMBtu/hr, HHV)		35.9	38.2	39.3	0.0	0.0	0.0	
Duct Burner Emissions	Lb/MMBtu, HHV	CO2	116.889	116.889	116.889	116.889	116.889	116.889
		CH4	2.20E-03	2.20E-03	2.20E-03	2.20E-03	2.20E-03	2.20E-03
		N2O	2.20E-04	2.20E-04	2.20E-04	2.20E-04	2.20E-04	2.20E-04
	Lb/hr	CO2	4,196.32	4,465.16	4,593.74	0.00	0.00	0.00
		CH4	0.079	0.084	0.087	0.000	0.000	0.000
		N2O	0.0079	0.0084	0.0087	0.00	0.00	0.00

CO2 emission rates are based on 40 CFR 98 emission factors.

**TABLE 5**  
**NYC-DOC-Rikers Island**  
**Emission Unit U0001 Existing Actual Baseline Emission Calculations**

U00001:Emission Sources: 00001, 00002, 00003, 00004

4 boilers 96 mmBtu/hr each NG HHV: 1030 Btu/scf  
 250 mmBtu/hr total firing rate (permit limit) #2 Oil HHV: 138 mmBtu/1000 gal

**Baseline Year: 2007**

NG: 519 mmcf burned  
 #2 Oil: 271.777 1000 gals burned

Pollutant	Natural Gas			Emission Factor (lbs/10 <sup>3</sup> gals)	#2 Oil		TOTAL tpy
	Emission Factor (lbs/mmscf)	Emissions (lbs/yr)	Emissions (tpy)		Emissions (lbs/yr)	Emissions (tpy)	
NOx	72.56	37,659	18.83	17.28	4696.31	2.348	21.18
CO	84	43,596	21.80	5	1358.89	0.679	22.48
VOC	5.5	2,855	1.43	0.34	92.40	0.046	1.47
SO2	0.6	311	0.16	28.4	7718.47	3.859	4.01
PM10	7.6	3,944	1.97	2.38	646.83	0.323	2.30
PM2.5	7.6	3,944	1.97	2.13	578.89	0.289	2.26
Lead	0.0005	0.26	0.00013	0.001242	0.34	0.00017	0.00030
CO2	120,396	62,485,327	31243	22,501	6,115,366	3058	34,300
CH4	2.27	1,179	0.59	0.91	248.05	0.12	0.71
N2O	0.23	118	0.06	0.18	49.61	0.02	0.08

**Baseline Year: 2008**

NG: 564.434 mmcf burned  
 #2 Oil: 41.806 1000 gals burned

Pollutant	Natural Gas			Emission Factor (lbs/10 <sup>3</sup> gals)	#2 Oil		TOTAL tpy
	Emission Factor (lbs/mmscf)	Emissions (lbs/yr)	Emissions (tpy)		Emissions (lbs/yr)	Emissions (tpy)	
NOx	72.56	40,955	20.48	17.28	722.41	0.361	20.84
CO	84	47,412	23.71	5	209.03	0.105	23.81
VOC	5.5	3,104	1.55	0.34	14.21	0.007	1.56
SO2	0.6	339	0.17	28.4	1187.29	0.594	0.76
PM10	7.6	4,290	2.14	2.38	99.50	0.050	2.19
PM2.5	7.6	4,290	2.14	2.13	89.05	0.045	2.19
Lead	0.0005	0.28	0.00014	0.001242	0.05	0.00003	0.00017
CO2	120,396	67,955,382	33,978	22,501	940,694	470	34,448
CH4	2.27	1,282	0.64	0.91	38.16	0.019	0.66
N2O	0.23	128	0.06	0.18	7.63	0.004	0.07

**Average: 2007 - 2008**

Pollutant	Emissions (tpy)		
	2007	2008	AVG
NOx	21.18	20.84	21.01
CO	22.48	23.81	23.14
VOC	1.47	1.56	1.52
SO2	4.01	0.76	2.39
PM10	2.30	2.19	2.25
PM2.5	2.26	2.19	2.23
Lead	0.00030	0.00017	0.00023
CO2	34,300	34,448	34,374
CH4	0.71	0.66	0.69
N2O	0.08	0.07	0.08

**Notes:**

Emission rates and fuel usages for NOx, CO, VOC, SO2, PM10, and PM2.5 are obtained from the 2007 and 2008 Emission Statements.

CO2 emissions are obtained from 40 CFR 98.

**TABLE 6  
NYC-DOC-Rikers Island  
Emission Unit U0002 Existing Actual Baseline Emission Calculations**

U00002: Emission Sources: 00005, 00006

2 boilers                      96 mmBtu/hr each                      NG HHV:                      1030 Btu/scf  
   192 mmBtu/hr                      total firing rate                      #2 Oil HHV:                      138 mmBtu/1000 gal

**Baseline Year: 2007**

NG:                      342.05 mmcf burned  
#2 Oil:                      72 1000 gals burned

Pollutant	Natural Gas			#2 Oil			TOTAL tpy
	Emission Factor (lbs/mmscf)	Emissions (lbs/yr)	Emissions (tpy)	Emission Factor (lbs/10 <sup>3</sup> )	Emissions (lbs/yr)	Emissions (tpy)	
NOx	72.56	24,819	12.41	17.28	1244.16	0.622	13.03
CO	84	28,732	14.37	5	360.00	0.180	14.55
VOC	5.5	1,881	0.94	0.34	24.48	0.012	0.95
SO2	0.6	205	0.10	28.4	2044.80	1.022	1.13
PM10	7.6	2,600	1.30	2.38	171.36	0.086	1.39
PM2.5	7.6	2,600	1.30	2.13	153.36	0.077	1.38
Lead	0.0005	0.17	0.00009	0.001242	0.09	0.00004	0.00013
CO2	120,396	41,181,322	20591	22,501	1,620,102	810	21,401
CH4	2.27	777	0.39	0.91	65.72	0.03	0.42
N2O	0.23	78	0.04	0.18	13.14	0.01	0.05

**Baseline Year: 2008**

NG:                      322.03 mmcf burned  
#2 Oil:                      28.041 1000 gals burned

Pollutant	Natural Gas			#2 Oil			TOTAL tpy
	Emission Factor (lbs/mmscf)	Emissions (lbs/yr)	Emissions (tpy)	Emission Factor (lbs/10 <sup>3</sup> )	Emissions (lbs/yr)	Emissions (tpy)	
NOx	72.56	23,366	11.68	17.28	484.55	0.242	11.93
CO	84	27,051	13.53	5	140.21	0.070	13.60
VOC	5.5	1,771	0.89	0.34	9.53	0.005	0.89
SO2	0.6	193	0.10	28.4	796.36	0.398	0.49
PM10	7.6	2,447	1.22	2.38	66.74	0.033	1.26
PM2.5	7.6	2,447	1.22	2.13	59.73	0.030	1.25
Lead	0.0005	0.16	0.00008	0.001242	0.03	0.00002	0.00010
CO2	120,396	38,771,002	19,386	22,501	630,962	315	19,701
CH4	2.27	731	0.37	0.91	25.59	0.013	0.38
N2O	0.23	73	0.04	0.18	5.12	0.003	0.04

**Average: 2007 - 2008**

Pollutant	Emissions (tpy)		
	2007	2008	AVG
NOx	13.03	11.93	12.48
CO	14.55	13.60	14.07
VOC	0.95	0.89	0.92
SO2	1.13	0.49	0.81
PM10	1.39	1.26	1.32
PM2.5	1.38	1.25	1.32
Lead	0.00013	0.00010	0.00011
CO2	21,401	19,701	20,551
CH4	0.42	0.38	0.40
N2O	0.05	0.04	0.04

**Notes:**

Emission rates and fuel usages for NOx, CO, VOC, SO2, PM10, and PM2.5 are obtained from the 2007 and 2008 Emission Statements.

CO2 emissions are obtained from 40 CFR 98.

**TABLE 7**  
**NYC-DOC-Rikers Island**  
**Emission Unit U0003 Existing Actual Baseline Emission Calculations**

U00003: Emission Sources 00007, 00008

2 boilers                      96 mmBtu/hr each                      NG HHV:                      1030 Btu/scf  
    192 mmBtu/hr                      total firing rate                      #2 Oil HHV:                      138 mmBtu/1000 gal

**Baseline Year: 2007**

NG:                      154.03 mmcf burned  
 #2 Oil:                      48.88 1000 gals burned

Pollutant	Natural Gas			#2 Oil			TOTAL tpy
	Emission Factor	Emissions (lbs/yr)	Emissions (tpy)	Emission Factor	Emissions (lbs/yr)	Emissions (tpy)	
	(lbs/mmcf)			(lbs/10 <sup>3</sup> )			
NOx	72.56	11,176	5.59	17.28	844.65	0.422	6.01
CO	84	12,939	6.47	5	244.40	0.122	6.59
VOC	5.5	847	0.42	0.34	16.62	0.008	0.43
SO2	0.6	92	0.05	28.4	1388.19	0.694	0.74
PM10	7.6	1,171	0.59	2.38	116.33	0.058	0.64
PM2.5	7.6	1,171	0.59	2.13	104.11	0.052	0.64
Lead	0.0005	0.08	0.00004	0.001242	0.06	0.00003	0.00007
CO2	120,396	18,544,537	9272	22,501	1,099,869	550	9,822
CH4	2.27	350	0.17	0.91	44.61	0.02	0.20
N2O	0.23	35	0.02	0.18	8.92	0.00	0.02

**Baseline Year: 2008**

NG:                      216.45 mmcf burned  
 #2 Oil:                      9.815 1000 gals burned

Pollutant	Natural Gas			#2 Oil			TOTAL tpy
	Emission Factor	Emissions (lbs/yr)	Emissions (tpy)	Emission Factor	Emissions (lbs/yr)	Emissions (tpy)	
	(lbs/mmcf)			(lbs/10 <sup>3</sup> )			
NOx	72.56	15,706	7.85	17.28	169.60	0.085	7.94
CO	84	18,182	9.09	5	49.08	0.025	9.12
VOC	5.5	1,190	0.60	0.34	3.34	0.002	0.60
SO2	0.6	130	0.06	28.4	278.75	0.139	0.20
PM10	7.6	1,645	0.82	2.38	23.36	0.012	0.83
PM2.5	7.6	1,645	0.82	2.13	20.91	0.010	0.83
Lead	0.0005	0.11	0.00005	0.001242	0.01	0.00001	0.00006
CO2	120,396	26,059,632	13,030	22,501	220,851	110	13,140
CH4	2.27	492	0.25	0.91	8.96	0.004	0.25
N2O	0.23	49	0.02	0.18	1.79	0.001	0.03

**Average: 2007 - 2008**

Pollutant	Emissions (tpy)		
	2007	2008	AVG
NOx	6.01	7.94	6.97
CO	6.59	9.12	7.85
VOC	0.43	0.60	0.51
SO2	0.74	0.20	0.47
PM10	0.64	0.83	0.74
PM2.5	0.64	0.83	0.74
Lead	0.00007	0.00006	0.00006
CO2	9,822	13,140	11,481
CH4	0.20	0.25	0.22
N2O	0.02	0.03	0.02

**Notes:**

Emission rates and fuel usages for NOx, CO, VOC, SO2, PM10, and PM2.5 are obtained from the 2007 and 2008 Emission Statements.  
 CO2 emissions are obtained from 40 CFR 98.

**TABLE 8**  
**NYC-DOC-Rikers Island**  
**Emission Units U00001, U00002, and U00003 Actual Baseline Emission**  
**Calculations Reflecting New NOX RACT**

**U00001: Emission Sources: 00001, 00002, 00003, 00004**  
**4 boilers** 96 mmBtu/hr each NG HHV: 1030 Btu/scf  
 250 mmBtu/hr total firing rate (permit limit) #2 Oil HHV: 138 mmBtu/1000 gal

<b>Baseline Year: 2007</b>				<b>Baseline Year: 2008</b>			
NG:	519 mmcf burned			NG:	564.434 mmcf burned		
#2 Oil:	271.777 1000 gals burned			#2 Oil:	41.806 1000 gals burned		
	<b>Natural Gas</b>			<b>#2 Oil</b>			<b>TOTAL</b>
<b>Year</b>	<b>Emission Factor (lbs/mmscf)</b>	<b>Emissions (lbs/yr)</b>	<b>Emissions (tpy)</b>	<b>Emission Factor (lbs/10<sup>3</sup> gals)</b>	<b>Emissions (lbs/yr)</b>	<b>Emissions (tpy)</b>	<b>tpy</b>
NOx-2007	51.5	26,729	13.36	11.04	3000.42	1.500	14.86
NOx-2008	51.5	29,068	14.53	11.04	461.54	0.231	14.76
<b>Average</b>							<b>14.81</b>

**U00002: Emission Sources: 00005, 00006**  
**2 boilers** 96 mmBtu/hr each NG HHV: 1030 Btu/scf  
 192 mmBtu/hr total firing rate #2 Oil HHV: 138 mmBtu/1000 gal

<b>Baseline Year: 2007</b>				<b>Baseline Year: 2008</b>			
NG:	342.05 mmcf burned			NG:	322.03 mmcf burned		
#2 Oil:	72 1000 gals burned			#2 Oil:	28.041 1000 gals burned		
	<b>Natural Gas</b>			<b>#2 Oil</b>			<b>TOTAL</b>
<b>Pollutant</b>	<b>Emission Factor (lbs/mmscf)</b>	<b>Emissions (lbs/yr)</b>	<b>Emissions (tpy)</b>	<b>Emission Factor (lbs/10<sup>3</sup> gals)</b>	<b>Emissions (lbs/yr)</b>	<b>Emissions (tpy)</b>	<b>tpy</b>
NOx-2007	51.5	17,616	8.81	11.04	794.88	0.397	9.21
NOx-2008	51.5	16,585	8.29	11.04	309.57	0.155	8.45
<b>Average</b>							<b>8.83</b>

**U00003: Emission Sources 00007, 00008**  
**2 boilers** 96 mmBtu/hr each NG HHV: 1030 Btu/scf  
 192 mmBtu/hr total firing rate #2 Oil HHV: 138 mmBtu/1000 gal

<b>Baseline Year: 2007</b>				<b>Baseline Year: 2008</b>			
NG:	154.03 mmcf burned			NG:	216.45 mmcf burned		
#2 Oil:	48.88 1000 gals burned			#2 Oil:	9.815 1000 gals burned		
	<b>Natural Gas</b>			<b>#2 Oil</b>			<b>TOTAL</b>
<b>Pollutant</b>	<b>Emission Factor (lbs/mmscf)</b>	<b>Emissions (lbs/yr)</b>	<b>Emissions (tpy)</b>	<b>Emission Factor (lbs/10<sup>3</sup> gals)</b>	<b>Emissions (lbs/yr)</b>	<b>Emissions (tpy)</b>	<b>tpy</b>
NOx-2007	51.5	7,933	3.97	11.04	539.64	0.270	4.24
NOx-2008	51.5	11,147	5.57	11.04	108.36	0.054	5.63
<b>Average</b>							<b>4.93</b>

**TABLE 9  
NYC-DOC-Rikers Island  
Future Boiler Emission Rates and ERC Calculations**

U00001:Emission Sources: 00001, 00002, 00003, 00004

4 boilers 96 mmBtu/hr each NG HHV: 1030 Btu/scf  
250 mmBtu/hr total firing rate (permit limit) #2 Oil HHV: 138 mmBtu/1000 gal  
908 Hours/yr on 100% natural gas 511 Hours/yr on 100% fuel oil

Pollutant	Natural Gas		#2 Oil		Tons/yr (Nat. Gas)	Tons/yr (Fuel Oil)	Tons/yr (MAX)	Lbs/yr (MAX)	ERCs Created (tpy)	ERCs Created (lbs/yr)
	Emission Factor (lbs/mmscf)	Emissions (lbs/hr)	Emission Factor (lbs/10 <sup>3</sup> gals)	Emissions (lbs/hr)						
NOx	72.56	17.61	17.28	31.30	8.00	8.00	8.00	16,000	6.81	13,629.4
CO	84	20.39	5	9.06	9.26	2.31	9.26			
VOC	5.5	1.33	0.34	0.62	0.61	0.16	0.61			
SO2	0.6	0.15	28.4	51.45	0.07	13.15	13.15			
PM10	7.6	1.84	2.38	4.31	0.84	1.10	1.10	2,204	1.14	2,286.5
PM2.5	7.6	1.84	2.13	3.86	0.84	0.99	0.99			
Lead	0.0005	0.00012	0.0012	0.0023	0.000055	0.00058	0.00058			
CO2	120,396	29,222	22,501	40,763	13,274	10,417	13,274			
CH4	2.27	0.55	0.91	1.65	0.25	0.42	0.42			
N2O	0.23	0.06	0.18	0.33	0.03	0.08	0.08			

U00002:Emission Sources: 00005, 00006

2 boilers 96 mmBtu/hr each NG HHV: 1030 Btu/scf  
192 mmBtu/hr #2 Oil HHV: 138 mmBtu/1000 gal  
296 Hours/yr on 100% natural gas 166 Hours/yr on 100% fuel oil

Pollutant	Natural Gas		#2 Oil		Tons/yr (Nat. Gas)	Tons/yr (Fuel Oil)	Tons/yr (MAX)	Lbs/yr (MAX)	ERCs Created (tpy)	ERCs Created (lbs/yr)
	Emission Factor (lbs/mmscf)	Emissions (lbs/hr)	Emission Factor (lbs/10 <sup>3</sup> gals)	Emissions (lbs/hr)						
NOx	72.56	13.53	17.28	24.04	2.00	2.00	2.00	4,000	6.83	13,652.3
CO	84	15.66	5	6.96	2.32	0.58	2.32			
VOC	5.5	1.03	0.34	0.47	0.15	0.04	0.15			
SO2	0.6	0.11	28.4	39.51	0.02	3.29	3.29			
PM10	7.6	1.42	2.38	3.31	0.21	0.28	0.28	551	1.05	2,091.6
PM2.5	7.6	1.42	2.13	2.96	0.21	0.25	0.25			
Lead	0.0005	0.000093	0.0012	0.0017	0.000014	0.00014	0.00014			
CO2	120,396	22,443	22,501	31,306	3,319	2,604	3,319			
CH4	2.27	0.42	0.91	1.27	0.06	0.11	0.11			
N2O	0.23	0.04	0.18	0.25	0.01	0.02	0.02			

U00003:Emission Source: 00007,00008

1 boiler 96 mmBtu/hr each NG HHV: 1030 Btu/scf  
192 mmBtu/hr #2 Oil HHV: 138 mmBtu/1000 gal  
148 Hours/yr on 100% natural gas 83 Hours/yr on 100% fuel oil

Pollutant	Natural Gas		#2 Oil		Tons/yr (Nat. Gas)	Tons/yr (Fuel Oil)	Tons/yr (MAX)	Lbs/yr (MAX)	ERCs Created (tpy)	ERCs Created (lbs/yr)
	Emission Factor (lbs/mmscf)	Emissions (lbs/hr)	Emission Factor (lbs/10 <sup>3</sup> gals)	Emissions (lbs/hr)						
NOx	72.56	13.53	17.28	24.04	1.00	1.00	1.00	2,000	3.93	7,863.9
CO	84	15.66	5	6.96	1.16	0.29	1.16			
VOC	5.5	1.03	0.34	0.47	0.08	0.02	0.08			
SO2	0.6	0.11	28.4	39.51	0.01	1.64	1.64			
PM10	7.6	1.42	2.38	3.31	0.10	0.14	0.14	275	0.60	1,202.2
PM2.5	7.6	1.42	2.13	2.96	0.10	0.12	0.12			
Lead	0.0005	0.000093	0.0012	0.0017	0.0000069	0.000072	0.00007			
CO2	120,396	22,443	22,501	31,306	1,659	1,302	1,659			
CH4	2.27	0.42	0.91	1.27	0.03	0.05	0.05			
N2O	0.23	0.04	0.18	0.25	0.00	0.01	0.01			

TOTAL Future Boiler Emissions

Pollutant	TOTAL Facility Emissions (tpy)	Total ERCs Created (tpy)	Total ERCs Created (lbs/yr)
NOx	11.00	17.57	35,145.5
CO	12.73		
VOC	0.83		
SO2	18.08		
PM10	1.52	2.79	5,580.3
PM2.5	1.36		
Lead	0.00079		
CO2	18,252		
CH4	0.58		
N2O	0.12		

**TABLE 10  
NYC-DOC-Rikers Island  
Future PTE Emission Rates**

Pollutant	Total Future PTE Emission Rates (tpy)						TOTAL	Range Codes
	U00001 <sup>(1)</sup>	U00002 <sup>(1)</sup>	U00003 <sup>(1)</sup>	U00009 <sup>(2)</sup>	U00010 <sup>(2)</sup>	U00011 <sup>(3)</sup>		
NOx	8.00	2.00	1.00	NA	22.50	42.00	75.50	F
CO	9.26	2.32	1.16	NA	10.42	53.98	77.13	F
VOC	0.61	0.15	0.08	2.50	1.22	3.09	7.64	B
SO2	13.15	3.29	1.64	NA	3.07	1.74	22.88	C
PM10	1.10	0.28	0.14	NA	1.33	15.77	18.61	C
PM2.5	0.99	0.25	0.12	NA	1.33	15.77	18.46	C
Lead	0.00058	0.00014	0.00007	NA	ND	ND	0.00079	A
CO2	13,274	3,319	1,659	NA	2,536	104,421	125,209	
CH4	0.42	0.11	0.05	NA	0.10	1.97	2.65	
N2O	0.08	0.02	0.01	NA	0.02	0.20	0.33	
CO2e	13,407	3,352	1,676	NA	2,569	105,035	126,038	

**Notes:**

- (1) See Table 9. NOx and PM10 emissions from U00001, U00002, and U00003 will be capped.
- (2) See Table 1. There are no changes being made to U00009 or U00010.
- (3) See Tables 2, 3, and 4. NOx and PM10 emissions from U00011 will be capped.

**TABLE 11**  
**NYC-DOC-Rikers Island**  
**Example Monthly Cogeneration Plant Emissions Calculations**  
**Utilizing Monthly Fuel Usage and Cogen Emission Factors**

		NG HHV (Btu/scf)	1030			
			(lbs/mmBtu)	(lbs/mmscf)		
		Turbine NOx EF	0.043	44.29		
		Duct Burner NOx EF	0.07	72.10		
Month	Turbine		Duct Burner		TOTAL Emissions (tons/month)	
	Monthly usage (mmscf)	NOx Emiss (tons/month)	Monthly usage (mmscf)	NOx Emiss		
January	129.49	2.87	51.28	1.85	4.72	
February	119.42	2.64	51.49	1.86	4.50	
March	127.75	2.83	43.12	1.55	4.38	
April	117.76	2.61	29.20	1.05	3.66	
May	107.34	2.38	0.93	0.03	2.41	
June	104.88	2.32	0.00	0.00	2.32	
July	111.65	2.47	0.00	0.00	2.47	
August	111.51	2.47	0.00	0.00	2.47	
September	104.65	2.32	0.02	0.00	2.32	
October	112.73	2.50	7.95	0.29	2.78	
November	117.37	2.60	22.18	0.80	3.40	
December	128.10	2.84	43.14	1.56	4.39	
<b>TOTAL Annual</b>					<b>39.83</b>	<b>&lt;42 tpy CAP</b>
			(lbs/mmBtu)	(lbs/mmscf)		
		Turbine PM10 EF	0.019	19.57		
		Duct Burner PM10 EF	0.01	10.30		
Month	Turbine		Duct Burner		TOTAL Emissions (tons/month)	
	Monthly usage (mmscf)	PM10 Emiss (tons/month)	Monthly usage (mmscf)	PM10 Emiss		
January	129.49	1.27	51.28	0.26	1.53	
February	119.42	1.17	51.49	0.27	1.43	
March	127.75	1.25	43.12	0.22	1.47	
April	117.76	1.15	29.20	0.15	1.30	
May	107.34	1.05	0.93	0.00	1.06	
June	104.88	1.03	0.00	0.00	1.03	
July	111.65	1.09	0.00	0.00	1.09	
August	111.51	1.09	0.00	0.00	1.09	
September	104.65	1.02	0.02	0.00	1.02	
October	112.73	1.10	7.95	0.04	1.14	
November	117.37	1.15	22.18	0.11	1.26	
December	128.10	1.25	43.14	0.22	1.48	
<b>TOTAL Annual</b>					<b>14.91</b>	<b>&lt;15.77 tpy CAP</b>

**Attachment D**  
**Regulatory Review**

**NYC-DOC-Rikers Island  
Proposed Cogeneration Plant  
Regulatory Review**

**Part 231-6 - Modifications to Existing Major Facilities in Nonattainment Areas and Attainment Areas of the State within the Ozone Transport Region (NANSR)**

Nonattainment New Source Review (NANSR) under Part 231-6 applies to nonattainment pollutants proposed to be emitted from modifications to existing major facilities. The intention is to require such facilities to control emissions of pollutants whose ambient concentrations already exceed their federal National Ambient Air Quality Standards (NAAQS) very stringently. Emissions of NO<sub>x</sub>, VOC, and PM<sub>2.5</sub> are subject to NANSR since these already exceed their respective NAAQS. Rikers Island is an existing major facility for NO<sub>x</sub> since existing NO<sub>x</sub> emissions are greater than the major facility threshold (MFT) of 25 tpy. Existing VOC and PM<sub>2.5</sub> emissions are less than the MFT of 25 tpy and 100 tpy, respectively (see Table 1). In addition, the project emission potential (PEP) for VOC and PM<sub>2.5</sub> from the proposed cogeneration plant are less than the MFT (see Table 2); therefore NANSR does not apply to these pollutants. The following discussion focuses on NO<sub>x</sub> applicability.

A modification to an existing major facility with a PEP for any nonattainment contaminant that equals or exceeds the applicable significant project threshold (SFP) must perform a netting analysis per 231-6.2. The SFP is 2.5 tpy for NO<sub>x</sub>. The PEP for the proposed cogeneration plant is 42.00 tpy NO<sub>x</sub>. A netting analysis is provided in the attached NSR worksheets. The netting analysis shows that the net emission increase (NEI) of 24.43 tpy is below the significant net emission increase threshold (SNEIT) of 25 tpy for NO<sub>x</sub>. Therefore, the modification does not result in a NSR major modification and is not subject to NANSR.

**Part 231-8 - Modifications to Existing Major Facilities in Attainment Areas (Prevention of Significant Deterioration)**

The PSD regulations affect facilities which meet two applicability criteria. First, the facility must be “major”; secondly, it must propose to increase emissions of a regulated pollutant in attainment with its national ambient air quality standard by a quantity greater than a certain threshold. “Major” for PSD is defined as any “category” facility listed in Section 169 of the Clean Air Act that has the potential to emit 100 tpy or more of an attainment regulated pollutant or 250 tpy for any other source. This includes emissions from fugitive sources. The existing Rikers Island powerhouse is considered an existing PSD facility and is considered major for PSD purposes based on the existing maximum potential-to-emit (PTE) emissions in the facility’s Title V permit. Therefore, the new cogeneration facility is being evaluated as if the existing facility is a PSD facility. The existing powerhouse is considered one of the 28 source categories: boilers with a heat input > 250 mmBtu/hr; therefore, the PSD major facility source threshold is 100 tons per year (tpy) for a single pollutant. The pollutants affected under PSD include NO<sub>x</sub>, CO, PM (including PM<sub>10</sub>), and SO<sub>2</sub>.

A modification to an existing major facility with a PEP that equals or exceeds the applicable SFP must perform a netting analysis per 231-8.2. The SFP for NO<sub>x</sub>, CO, PM, PM<sub>10</sub> and SO<sub>2</sub> is 40

tpy, 100 tpy, 25 tpy, 15 tpy, and 40 tpy, respectively. Table 2 presents the PEP for the proposed cogeneration plant. Since the PEP for NO<sub>x</sub> (42.00 tpy) and the PEP for PM<sub>10</sub> (15.77 tpy) exceed the SFP, a netting analysis is provided for these two pollutants in the attached NSR worksheets. The netting analysis shows that the NEI of 24.43 tpy for NO<sub>x</sub> and 12.98 tpy for PM<sub>10</sub> are below the SNEIT of 40 tpy and 15 tpy for NO<sub>x</sub> and PM<sub>10</sub>, respectively. Therefore, the modification does not result in a NSR major modification and is not subject to PSD.

**40 CFR Part 60 Subpart KKKK: Standards of Performance for Stationary Combustion Turbines:** This subpart establishes NO<sub>x</sub> and SO<sub>2</sub> emission standards and compliance schedules for the control of emissions from stationary combustion turbines. The turbines, duct burners, and HRSGs are all regulated under this NSPS and are exempt from 40 CFR 60 Subparts GG, Da, Db, and Dc.

For new electric generating turbines firing natural gas, which are greater than 50 mmBtu/hr, NO<sub>x</sub> emissions are limited to 25 ppm at 15 percent O<sub>2</sub> or 150 ng/J of useful output (1.2 lb/MWh). For all sizes of heat recovery units operating independent of the combustion turbine, NO<sub>x</sub> emissions are limited to 54 ppm at 15% O<sub>2</sub> or 110 ng/J of useful output (0.86 lb/MWh).

In addition to the NO<sub>x</sub> limits, the facility cannot cause to be discharged into the atmosphere any gases which contain SO<sub>2</sub> in excess of 110 ng/J (0.90 lbs/MWh) gross output or the facility must not burn any fuel which contains total potential sulfur emissions in excess of 25 ng/J (0.060 lbs SO<sub>2</sub>/MMBtu) heat input.

The proposed cogeneration plant is subject to 40 CFR 60 KKKK and meets the limits for NO<sub>x</sub> and SO<sub>2</sub>. The facility will perform annual performance tests to demonstrate compliance with the NO<sub>x</sub> limit and will obtain valid fuel purchase contracts to demonstrate compliance with the SO<sub>2</sub> limit.

#### **6 NYCRR 227-2 Reasonably Available Control Technology (RACT) For Oxides of Nitrogen (NO<sub>x</sub>)**

The facility is also subject to 6 NYCRR 227-2 for NO<sub>x</sub> RACT, which contains standards for emissions of NO<sub>x</sub> from combustion sources. The NO<sub>x</sub> RACT emission limit for simple cycle natural gas fired engines is 50 ppmvd corrected to 15 percent oxygen.

The gas turbines proposed for the cogeneration plant meet the NO<sub>x</sub> RACT emission limit under 6 NYCRR 227-2.

**Attachment E**  
**NSR Forms – Nonattainment Pollutants**

**Subparts 231-5 & 6 NA Area NSR Applicability**

NYSDEC-DAR

WKS-1 (SEE FC-1)

Page 1 of 2

<b>SUBPARTS 231-5 &amp; 6, FACILITY TYPE/APPLICABILITY DETERMINATION WORKSHEET</b>			
FACILITY NAME: <u>NYC-DOC -Rikers Island</u> ADDRESS: <u>17-25 Hazen Street, East Elmhurst, NY 11370</u> APPLICATION DEC ID# <u>2-6007-00259</u> COUNTY: <u>Bronx</u> PROPOSED PROJECT DESCRIPTION: <u>Installation and operation of a cogeneration plant.</u>			
EMISSION SOURCE ID# <u>S0011</u>			
PREPARER'S NAME <u>Ramon Li, P.E.</u> SIGNATURE		TITLE <u>Technical Director, AKRF, Inc.</u> DATE <u>09/16/10</u>	
REVIEWER'S NAME _____		REGION # _____ DATE ____ / ____ / ____	
	<b>Y</b>	<b>N</b>	<b>ACTION</b>
1. Identify NA contaminants based on facility location: VOC <input checked="" type="checkbox"/> NOx <input checked="" type="checkbox"/> PM-10 _____ PM-2.5 <input checked="" type="checkbox"/>			Go to 2
2. Is a new facility with emissions of any NA contaminant being proposed?		X	YES- Go to WKS-2 NO - Go to 3
3. Is a modification (Re: paragraph 231-4.1(b)(28)), see NOTE #1, being proposed to an existing facility?	X		YES - Go to 4 NO - See NOTE #2
4. A modification is proposed. Is existing facility located in a Severe Ozone, PM-10, or PM-2.5 NA area?	X		YES- Go to WKS-3A NO - See NOTE #3, Go to WKS-4
COMMENTS:			
<p>NOTE #1 - <i>Modification.</i> A modification is any physical change in, or change in the method of operation of, a facility which results in a level of annual emissions in excess of the Baseline Actual Emissions of any Regulated NSR Contaminant emitted by such facility or which results in the emission of any Regulated NSR Contaminant not previously emitted. A modification shall not include the following:</p> <ul style="list-style-type: none"> <li>(i) routine maintenance, repair, or replacement as defined in 6 NYCRR Part 200.</li> <li>(ii) use of an alternative fuel or raw material by reason of an order under sections 2(a) and (b) of the Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plan pursuant to the Federal Power Act;</li> <li>(iii) use of an alternative fuel by reason of an order or rule under section 125 of the Clean Air Act;</li> <li>(iv) use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste;</li> <li>(v) use of an alternative fuel or raw material by a facility which:                             <ul style="list-style-type: none"> <li>(a) the facility was capable of accommodating before January 6, 1975, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975 pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR Part 51 Subpart I or 40 CFR 51.166; or</li> </ul> </li> </ul>			

(continued)

(b) the facility is approved to use, pursuant to this Part, or which is included in a permit issued pursuant to 40 CFR 52.21.

(vi) an increase in the hours of operation or in the production rate, unless such change would be prohibited under any permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR Part 51 Subpart I or 40 CFR 51.166;

(vii) any change in ownership at a facility.

NOTE #2 - Not subject to Subparts 231-5 or 6, however, project may be subject to the notification requirements of 231-3.6(c) if the applicant determines that the proposed project does not constitute a *modification* because all the project emission increases are attributable to independent factors in accordance with 231-4.1(b)(40)(i)(c).

NOTE #3 - Existing Facility is in Marginal/Moderate Ozone NA Areas or attainment portions of the Ozone Transport Region.

<b>SUBPART 231-5 &amp; 6, EXISTING FACILITY MODIFICATION - SEVERE OZONE, PM-10, OR PM-2.5 NA AREA - APPLICABILITY WORKSHEET</b>			
FACILITY NAME <u>NYC-DOC-Rikers Island</u> APPLICATION DEC ID# <u>2-6007-00259</u> EMISSION SOURCE ID#S <u>U0011</u>			
	<b>Y</b>	<b>N</b>	<b>ACTION</b>
1. Is a modification being proposed? (Re: Paragraph 231-4.1(b)(28) and NOTE #1 on WKS-1)	X		YES - Go to 2 NO - See NOTE #1
2. Identify NA contaminant(s) based on existing facility location. VOC <u>X</u> NOx <u>X</u> PM-10 _____ PM-2.5 <u>X</u>			Go to 3
3. For any identified NA contaminant, is existing Facility PTE ≥ MFT? ( Use WKS-6 for calculating PTE) VOC (PTE) <u>18.54</u> tpy ≥ 25 tpy? NOx (PTE) <u>466.81</u> tpy ≥ 25 tpy? PM-10 (PTE) _____ tpy ≥ 100 tpy? PM-2.5 (PTE) <u>44.19</u> tpy ≥ 100 tpy?	X		YES - Go to 5 NO - Go to 4
4. Non-major facility. For any identified NA contaminant, is PEP ≥ MFT? (Use WKS-7 for calculating PEP) VOC (PEP) _____ tpy ≥ 25 tpy? NOx (PEP) _____ tpy ≥ 25 tpy? PM-10 (PEP) _____ tpy ≥ 100 tpy? PM-2.5 (PEP) _____ tpy ≥ 100 tpy?			YES - See NOTE #6, go to 8 NO - See NOTE #2
5. Major facility. For any identified NA contaminant, is PEP ≥ SPT? (Use WKS-7 for calculating PEP) VOC (PEP) _____ tpy ≥ 2.5 tpy? NOx (PEP) <u>42.00</u> tpy ≥ 2.5 tpy? PM-10 (PEP) _____ tpy ≥ 15 tpy? PM-2.5 (PEP) _____ tpy ≥ 10 tpy?	X		YES - Go to 6 NO - See NOTE #3
6. Has a NEI analysis been provided by the applicant? (Re: Section 231-4.1(b)(29) and WKS-5A & B)	X		YES - Go to 7 NO - See NOTE #5
7. For any identified NA contaminant which satisfies condition #5, is NEI > SNEIT (VOC/NOx) or NEI ≥ SNEIT (PM-10/PM-2.5)? VOC (NEI) _____ tpy > 25 tpy? NOx (NEI) <u>24.43</u> tpy > 25 tpy? PM-10 (NEI) _____ tpy ≥ 15 tpy? PM-2.5 (NEI) _____ tpy ≥ 10 tpy?		X	YES - See NOTE #7, go to 9 NO - See NOTE #4
8. Has the applicant complied with all of the following permit requirements(Re: section 231-5.2): a. Compliance certification (Re: subdivision 231-5.2(a)). b. Submittal of a benefit analysis (Re: subdivision 231-5.2(b)). c. Submittal of a LAER demonstration, if required. (Re: subdivision 231-5.2(c) and section 231-5.4) d. Submittal of an air quality impact evaluation, if required. (Re: subdivisions 231-5.2(d) and (e)) e. Identification of emission sources providing internal offset or emission offset and submittal of copies of modified permits for the emission sources (Re: subdivisions 231-5.2(d) and (e)).			YES - See NOTE #8 NO - See NOTE #5

(continued)

<p>9. Has the applicant complied with all of the following permit requirements(Re: section 231-6.3):</p> <ul style="list-style-type: none"> <li>a. Compliance certification (Re: subdivision 231-6.3(a)).</li> <li>b. Submittal of a benefit analysis (Re: subdivision 231-6.3(b)).</li> <li>c. Submittal of a LAER demonstration, if required. (Re: subdivision 231-6.3(c) and section 231-6.5)</li> <li>d. Submittal of an air quality impact evaluation, if required. (Re: subdivisions 231-6.3(d) and (e))</li> <li>e. Identification of emission sources providing internal offset or emission offset and submittal of copies of modified permits for the emission sources (Re: subdivisions 231-6.3(d) and (e)).</li> </ul>			<p>YES - See NOTE #8</p> <p>NO - See NOTE #5</p>
<p>NOTE #1 - Not Subject to Subpart 231-5 or 6 but may be subject to 231-3.6(c).</p>			
<p>NOTE #2 - Not subject to Subpart 231-5 review, however, if Facility PTE after modification exceeds applicable MFT, a permit with new PTE limit is required (231-5.1(b)).</p>			
<p>NOTE #3- Not subject to Subpart 231-6 review, however must comply with applicable Section 231-11.2 reasonable possibility requirements for insignificant modifications.</p>			
<p>NOTE #4- Must comply with applicable Section 231-6.2 and 231-11.1 Netting requirements.</p>			
<p>NOTE #5 - Notice of incomplete application should be sent.</p>			
<p>NOTE #6 - Modification subject to Subpart 231-5 for each NA contaminant for which PEP ≥ MFT.</p> <ul style="list-style-type: none"> <li>• LAER control technology required for each emission source which is part of the modification and which emits any such NA contaminant.</li> <li>• Emission offset* required for the entire amount of the PEP times offset ratio for each such NA contaminant.</li> </ul> <p>For VOC &amp; NOx: 1.3:1 offset ratio.</p> <p>For PM-10 &amp; PM-2.5: 1:1 offset ratio, and a net air quality benefit analysis (modeling) required (231-5.5(d)).</p>			
<p>NOTE #7 - Modification Subject to Subpart 231-6.</p> <ul style="list-style-type: none"> <li>• For VOC and/or NOx, if identified NA contaminant(s) and NEI &gt; SNEIT: Control technology and emission offset* required as provided in special rules (see WKS-3B)</li> <li>• For PM-10 and/or PM-2.5, if identified NA contaminant(s) and NEI ≥ SNEIT: LAER control technology required for each emission source which is part of the modification and which emits any such NA contaminant. Emission offset* at a ratio of 1:1 required for the entire amount of the PEP for each such NA contaminant. A net air quality benefit analysis (modeling) required (231-6.6(d)).</li> </ul>			
<p>NOTE #8 - Detailed NA review may proceed.</p>			

\* For VOC, NOx, PM-10 and PM-2.5: an emission offset may be obtained from another NA area of equal or higher classification if emissions from such other area contribute to a violation of the National Ambient Air Quality Standard for the NA contaminant in the NA area of the proposed facility (Re: Section 231-5.5/231-6.6)

<b>SUBPART 231-6, NET EMISSION INCREASE ANALYSIS WORKSHEET</b> (Re: paragraph 231-4.1(b)(29))				
FACILITY NAME: NYC-DOC-Rikers Island				
APPLICATION DEC ID# 2-6007-00259				
EMISSION SOURCE ID#s U0011, _____, _____, _____, _____, _____				
<b>NOTE:</b> A net emission increase analysis is required for each nonattainment contaminant for which the PEP equals or exceeds the SPT.				
Non-attainment contaminant(s) for which PEP ≥ SPT (circle): VOC (NOx) PM-10 PM-2.5				
<b>Contemporaneous Period:</b>				
<p><u>Severe/Marginal/Moderate Ozone Nonattainment Areas and Attainment Portions of the Ozone Transport Region for VOC or NOx; and PM-10 or PM-2.5 Nonattainment Areas</u> - The period which begins 5 years prior to the date construction of the Proposed modification is scheduled to commence, and ends with the date the modification is scheduled to commence operation, as stated in the permit application. (Re: FC-6 and paragraph 231-4.1(b)(12)).</p> <p>Scheduled commence construction date: 6/1/2011</p> <p>Scheduled commence operation date: 7/18/2012*</p> <p>Start date of contemporaneous period: 6/1/2006</p> <p>End date of contemporaneous period: 7/18/2012* (generally this is the same as the scheduled commence operation date)</p>				
<p><b>Net Emission Increase</b> - The aggregate increase in emissions of a regulated NSR contaminant in tpy at an existing major facility resulting from the sum of:</p> <ul style="list-style-type: none"> <li>(i) the project emission potential of the modification; and</li> <li>(ii) every creditable emission increase at the facility which is contemporaneous and for which an emission offset was not obtained; and</li> <li>(iii) any ERC at the facility, or portion thereof, selected by the applicant which is contemporaneous and which was not previously used as part of an emission offset, an internal offset, or relied upon in the issuance of a permit under this Part.</li> </ul>				
<b>Net Emission Increase Summary</b>				
	VOC	NOx	PM-10	PM-2.5
Project Emission Potential (tpy, use WKS-7)		42.00		
Contemporaneous creditable emission increase/ERC (+tpy, use WKS-5B)		-17.57		
NET EMISSION INCREASE (+tpy)		24.43		

\*Per 231-6.2(c)(1): The NYC-DOC-Rikers Island Facility is submitting a permit application accepting a condition prohibiting the proposed modification from commencing operation until after the close of the contemporaneous period for the previously permitted modification (PLM units under Emission Unit U00010, Emission Sources: 00010 through 00028, previously permitted on 7/17/2007, with a contemporaneous period close date of 7/17/2012). The proposed modification for the cogeneration system will commence operation after 7/17/2012.

**SUBPART 231-6, CONTEMPORANEOUS CREDITABLE EMISSION INCREASES/EMISSION REDUCTION CREDITS WORKSHEET**

FACILITY NAME: NYC-DOC-Rikers Island  
 APPLICATION DEC ID# 2-6007-00259

Nonattainment Contaminants (circle one): VOC (NOx) PM-10 PM-2.5

Contemporaneous Period, See NOTE #1: 6/1/2006 – 7/18/2012

EMISSION SOURCE ID#s U0011, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

1. Emission Source	2. Description of contemporaneous change at source	3. Date of occurrence	4. Contemporaneous creditable emission increase/ERC (±tpy), See NOTES #2, #3
U0001 including Emission Sources 00001, 00002, 00003 and 00004	Curtailement of operations and creation of ERCs	7/18/2012	-6.81
U0002 including Emission Sources 00005 and 00006	Curtailement of operations and creation of ERCs	7/18/2012	-6.83
U0003 including Emission Sources 00007 and 00008	Curtailement of operations and creation of ERCs	7/18/2012	-3.93

Sum of all increases/decreases above	-17.57 tpy
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NOTE #1 - *Contemporaneous*. The time period used in a net emission increase determination for a regulated NSR contaminant as follows:

- (i) The period beginning five years prior to the proposed commence construction date of the new or modified emission source, and ending with the proposed commence operation date. These dates must be proposed by an applicant in a permit application.
- (ii) For facilities proposing to use an alternative operating scenario pursuant to Part 201 of this Title, the period beginning five years prior to the date the application for the permit modification is determined complete by the department, in accordance with Part 621 of this Title, and ending with the final permit issuance date.

(continued)

NOTE #2 -	<i>Creditable emission increase.</i> Any increase in emissions of a regulated NSR contaminant in tpy from an emission source at an existing major facility, other than such an increase from any proposed modified facility under review, which: (i) results from a physical change in, or a change in the method of operation of an emission source(s); and (ii) is quantified as the difference between baseline actual emissions and projected actual emissions.
NOTE #3 -	<i>Emission reduction credit, ERC.</i> The actual decrease in emissions of a regulated NSR contaminant, in tpy, determined in accordance with the requirements of Subpart 231-10 of this Part.

**SUBPART 231-5 & 6, FACILITY POTENTIAL TO EMIT CALCULATION WORKSHEET**

FACILITY NAME: NYC-DOC-Rikers Island  
 APPLICATION DEC ID# 2-6007-00259

**NOTE:** Facility PTE is -

- A. For a proposed new facility - Sum of the PTE of each proposed emission source.
- B. For an existing facility - Sum of the PTE of each existing emission source.

**NOTE:** PTE - The maximum capacity of an air contamination source to emit any regulated air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the emission source to emit a regulated air pollutant, including air pollution control equipment and/or restrictions on the hours of operation, or on the type or amount of material combusted, stored, or processed, shall be treated as part of the design if the limitation is enforceable by the department and the administrator. Fugitive emissions, to the extent that they are quantifiable, are included in determining the potential to emit where required by an applicable requirement. For emergency power generating stationary internal combustion engines, the potential to emit will be based on a maximum of 500 hours of operation per year per engine unless a more restrictive limitation exists in a permit or registration. (Re: subdivision 200.1(b))

**Nonattainment contaminant(s):** (circle) VOC NOx PM-10 PM-2.5

**Facility Emission Potential Calculation**

EMISSION SOURCE ID#	PTE of VOC (tpy)	PTE of NOx (tpy)	PTE of PM-10 (tpy)	PTE of PM-2.5 (tpy)
U0001 including Emission Sources 00001, 00002, 00003 and 00004	5.85	175.20		16.90
U0002 including Emission Sources 00005 and 00006	4.49	134.55		12.98
U0003 including Emission Sources 00007 and 00008	4.49	134.55		12.98
U0009 including Emission Source 00009	2.50			
U0010 including Emission Sources 00010 through 00028	1.22	22.50		1.33
Facility Potential To Emit (tpy) = (Sum of the potential to emit of each emission source)	18.54	466.81		44.19

<b>SUBPART 231-5 &amp; 6, PROJECT EMISSION POTENTIAL CALCULATION WORKSHEET</b>			
FACILITY NAME: NYC-DOC-Rikers Island APPLICATION DEC ID# 2-6007-00259 EMISSION SOURCE ID#s LI0011			
	<b>Y</b>	<b>N</b>	<b>ACTION</b>
1. Does the proposed modification involve addition of one or more new emission sources?	X		YES - Go to 2 NO - Go to 3
2. For each new emission source, what is the PTE (Re: subdivision 200.1(b)) in tpy of each identified NA contaminant?  ES ID# _____ VOC = _____ NOx = <u>42.00</u> _____ PM-10 = _____ PM-2.5 = _____	-	-	See NOTE #1, Go to 4
3. Therefore, the modification is of one or more existing emission sources.			Go to 5
4. Does the modification involve one or more existing emission sources?		X	YES - Go to 5 NO - Go to 7
5. For each existing emission source undergoing modification, what is the BAE (Re: paragraph 231-4.1(b)(4)) in tpy of each NA contaminant?  ES ID# _____ VOC = _____ NOx = _____ PM-10 = _____ PM-2.5 = _____	-	-	See NOTE #2, go to 6
6. For each existing emission source undergoing modification, what is the PAE (Re: paragraph 231-4.1(b)(4)) or the PTE (Re: subdivision 200.1(b)) (if used in lieu of PAE) in tpy of each NA contaminant after modification?  ES ID# _____ VOC = _____ NOx = _____ PM-10 = _____ PM-2.5 = _____ Please indicate whether the numbers are PTE or PAE: PTE <input type="checkbox"/> PAE <input type="checkbox"/>	-	-	See NOTES #1, #3, go to 7
<b>7. Project Emission Potential of VOC = Sum of:</b> a. Row 2 for VOC from each new emission source _____ + _____ + _____ + _____ + _____ + _____ + _____ = _____ tpy; <b>and</b> b. the difference between (Row 6 - Row 5) for VOC from each modification of an existing emission source _____ + _____ + _____ + _____ + _____ + _____ = _____ tpy  PEP of VOC = a + b = _____ tpy			

(continued)

**Project Emission Potential of NOx = Sum of:**

a. Row 2 for NOx from each new emission source  
 $42.00 + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$  tpy;

and

b. the difference between (Row 6 - Row 5) for NOx from each modification of an existing emission source  
 $\underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$  tpy

PEP of NOx = a + b =  $42.00$  tpy

**Project Emission Potential of PM-10 = Sum of:**

a. Row 2 for PM-10 from each new emission source  
 $\underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$  tpy;

and

b. the difference between (Row 6 - Row 5) for PM-10 from each modification of an existing emission source  
 $\underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$  tpy

PEP of PM-10 = a + b =  $\underline{\hspace{1cm}}$  tpy

**Project Emission Potential of PM-2.5 = Sum of:**

a. Row 2 for PM-2.5 from each new emission source  
 $\underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$  tpy;

and

b. the difference between (Row 6 - Row 5) for PM-2.5 from each modification of an existing emission source  
 $\underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$  tpy

PEP of PM-2.5 = a + b =  $\underline{\hspace{1cm}}$  tpy

NOTE #1 - *Potential to emit.* The maximum capacity of an air contamination source to emit any regulated air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the emission source to emit a regulated air pollutant, including air pollution control equipment and/or restrictions on the hours of operation, or on the type or amount of material combusted, stored, or processed, shall be treated as part of the design if the limitation is enforceable by the department and the administrator. Fugitive emissions, to the extent that they are quantifiable, are included in determining the potential to emit where required by an applicable requirement. For emergency power generating stationary internal combustion engines, the potential to emit will be based on a maximum of 500 hours of operation per year per engine unless a more restrictive limitation exists in a permit or registration.

NOTE #2 - *Baseline actual emissions.* The annual rate of emissions of a regulated NSR contaminant from an emission source determined as follows:

(i) The average rate (as defined in Clauses a, b, c, and, d below), in tpy, at which an emission source physically emitted the contaminant during its baseline period, determined by using the source's actual operating hours, production rates, and types of materials processed, stored, or combusted during the selected baseline period.

(a) The average rate includes fugitive emissions to the extent quantifiable if the facility belongs to one of the source categories listed in Table 9 of Subpart 231-13 of this Part, and emissions associated with startups, shutdowns, and malfunctions.

(b) The average rate must be adjusted downward to exclude any non compliant emissions that occurred while the emission source was operating above any applicable emission limitation.

(continued)

(c) Except for electric utility steam generating units, the average rate must be adjusted downward to exclude any emissions that exceeded an emission limitation with which the emission source must currently comply, had such emission source been required to comply with such limitations during the baseline period. However, if an emission limitation is part of a maximum achievable control technology standard that the administrator proposed or promulgated under 40 CFR Part 63, the baseline actual emissions rate need only be adjusted if the State has taken credit for such emissions reductions in an attainment demonstration or maintenance plan consistent with the requirements of 40 CFR 51.165(a)(3)(ii)(G). For the purposes of a creditable emission increase or emission reduction credit used for netting, currently means at the time that the increase or reduction actually occurred.

(d) For a regulated NSR contaminant, when a project involves multiple emissions sources, one baseline period must be used to determine the baseline actual emissions of the emission sources being modified. A different baseline period cannot be used for each regulated NSR contaminant.

(ii) The applicant must use a reliable basis for quantifying the baseline actual emissions. Continuous emissions monitoring (CEM) data or stack test data approved by the department must be used if the facility is required to generate such data. If such data is not available, acceptable bases for quantifying baseline actual emissions include, but are not limited to, emission statements, EPA's AP-42 emission factors, and fuel and solvent purchase records, with department approval.

NOTE #3 -

*Projected actual emissions.* The maximum annual rate, in tpy, at which an existing emission source is projected to emit a regulated NSR contaminant in any one of the five years (12-month period) following the date the source commences operation after a modification, or in any one of the 10 years following that date if the project involves increasing the emission source's design capacity or its potential to emit that regulated NSR contaminant and full utilization of the emission source would result in exceeding the applicable significant project threshold in Tables 3, 4 or 6 of Subpart 231-13 of this Part or a significant net emissions increase at the major facility. Projected actual emissions are calculated only for existing major facilities.

(i) In determining the projected actual emissions as defined in this Section (before beginning actual construction), the owner or operator of the major facility:

(a) must consider all relevant information, including but not limited to, historical operational data, the facility's own representations, the facility's expected business activity and the facility's highest projections of business activity, the facility's filings with the State or federal regulatory authorities, and compliance plans under the approved State Implementation Plan; and

(b) must include fugitive emissions to the extent quantifiable if the facility belongs to one of the source categories listed in Table 9 of Subpart 231-13 of this Part, and emissions associated with startups and shutdowns; and

(c) may exclude, in calculating any increase in emissions that results from the particular project, that portion of the emission source's emissions following the project that the existing emission source could have accommodated during the consecutive 24 month period used to establish the baseline actual emissions and that are also unrelated to the particular project.

(ii) In lieu of using the method set out in Subparagraph (i) of this Paragraph, the owner or operator of the facility may elect to use the potential to emit of the emission source(s), in tpy.

**Attachment F**  
**NSR Forms – Attainment Pollutants**

**Subparts 231-7 & 8 Attainment Area (PSD) NSR Applicability  
WKS-8 (SEE FC-7)**

**NYSDEC-DAR**

**Page 1 of 2**

**SUBPARTS 231-7 & 8, FACILITY TYPE/APPLICABILITY DETERMINATION WORKSHEET**

FACILITY NAME: NYC-DOC -Rikers Island  
 ADDRESS: 17-25 Hazen Street, East Elmhurst, NY 11370  
 APPLICATION DEC ID# 2-6007-00259  
 COUNTY: Bronx  
 PROPOSED PROJECT DESCRIPTION: Installation of a cogeneration system.

EMISSION SOURCE ID# S0011

PREPARER'S NAME Ramon Li, P.E. TITLE Technical Director, AKRF, Inc.  
 SIGNATURE *Ramon Li* DATE 09/16/10

REVIEWER'S NAME \_\_\_\_\_ REGION # \_\_\_\_\_ DATE  / /

	Y	N	ACTION
1. Is a new facility with emissions of any Regulated NSR contaminant (Re: paragraph 231-4.1(b)(43)), see NOTE #1, being proposed?		X	YES- Go to WKS-9 NO - Go to 2
2. Is a modification (Re: paragraph 231-4.1(b)(28)), see NOTE #2, being proposed to an existing facility?	X		YES - Go to WKS-10 NO - See NOTE #3

COMMENTS:

NOTE #1- *Regulated NSR Contaminant.* A regulated NSR contaminant is any one of the following:

- (i) Any contaminant for which a national ambient air quality standard has been promulgated and any constituents or precursors for such contaminants identified under the Act or by the administrator of the US EPA in a promulgated rule;
- (ii) Any contaminant that is subject to any standard promulgated under section 111 of the Act;
- (iii) Any Federal Class I or II substance subject to a standard promulgated under or established by Title VI of the Clean Air Act; or
- (iv) Any contaminant that otherwise is subject to regulation under the Clean Air Act; except that any or all hazardous air pollutants either listed in section 112 of the Act or added to the list pursuant to section 112(b)(2) of the Act, which have not been delisted pursuant to section 112(b)(3) of the Act, are not regulated NSR contaminants unless the listed hazardous air pollutant is also regulated as a constituent or precursor of a criteria contaminant listed under section 108 of the Act.

NOTE #2 - *Modification.* A modification is any physical change in, or change in the method of operation of, a facility which results in a level of annual emissions in excess of the Baseline Actual Emissions of any Regulated NSR Contaminant emitted by such facility or which results in the emission of any Regulated NSR Contaminant not previously emitted. A modification shall not include the following:

- (i) routine maintenance, repair, or replacement as defined in 6 NYCRR Part 200.
- (ii) use of an alternative fuel or raw material by reason of an order under sections 2(a) and (b) of the Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plan pursuant to the Federal Power Act;
- (iii) use of an alternative fuel by reason of an order or rule under section 125 of the Clean Air Act;

(continued)

(iv) use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste;

(v) use of an alternative fuel or raw material by a facility which:

(a) the facility was capable of accommodating before January 6, 1975, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975 pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR Part 51 Subpart I or 40 CFR 51.166; or

(b) the facility is approved to use, pursuant to this Part, or which is included in a permit issued pursuant to 40 CFR 52.21.

(vi) an increase in the hours of operation or in the production rate, unless such change would be prohibited under any permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR Part 51 Subpart I or 40 CFR 51.166;

(vii) any change in ownership at a facility.

NOTE #3 -

Not subject to Subparts 231-7 or 8, however, project may be subject to the notification requirements of 231-3.6(c) if the applicant determines that the proposed project does not constitute a *modification* because all the project emission increases are attributable to independent factors in accordance with 231-4.1(b)(40)(i)(c).

<b>SUBPART 231-7 &amp; 8, EXISTING FACILITY MODIFICATION</b>			
FACILITY NAME <u>NYC-DOC-Rikers Island</u> APPLICATION DEC ID# <u>2-6007-00259</u> EMISSION SOURCE ID#S <u>U0011</u>			
	<b>Y</b>	<b>N</b>	<b>ACTION</b>
1. Is a modification being proposed? (Re: paragraph 231-4.1(b)(28) and NOTE #1 on WKS-1)	X		YES - Go to 2 NO - See NOTE #2
2. For any Regulated NSR Contaminant (see Appendix B) is existing Facility PTE ≥ MFT? (See NOTE #1, use WKS-12 for calculating PTE) NOx <u>466.81</u> tpy      PM-10 <u>49.22</u> tpy SO2 <u>574.55</u> tpy      PM-2.5 _____ tpy CO <u>236.89</u> tpy      _____ tpy PM _____ tpy      _____ tpy	X		YES - Go to 4 NO - Go to 3
3. Non-major facility. For any Regulated NSR Contaminant (see Appendix B) is PEP ≥ MFT? (See NOTE #1, use WKS-13 for calculating PEP) NOx _____ tpy      PM-10 _____ tpy SO2 _____ tpy      PM-2.5 _____ tpy CO _____ tpy      _____ tpy PM _____ tpy      _____ tpy			YES - See NOTE #7, go to 7 NO - See NOTE #3
4. Major facility. For any Regulated NSR Contaminant (see Appendix B) is PEP ≥ SPT? (Use WKS-13 for calculating PEP) NOx (PEP) <u>42.00</u> tpy ≥ 40 tpy?      PM-10 (PEP) <u>15.77</u> tpy ≥ 15 tpy? SO2 (PEP) <u>1.74</u> tpy ≥ 40 tpy?      PM-2.5 (PEP) _____ tpy ≥ 10 tpy? CO (PEP) <u>53.98</u> tpy ≥ 100 tpy?      _____ (PEP) _____ tpy PM (PEP) <u>15.77</u> tpy ≥ 25 tpy?      _____ (PEP) _____ tpy	X		YES - Go to 5 NO - See NOTE #4
5. Has a NEI analysis been provided by the applicant? (Re: paragraph 231-4.1(b)(29) and WKS-11A & B)	X		YES - Go to 6 NO - See NOTE #6
6. For any Regulated NSR Contaminant which satisfies condition #5, is NEI ≥ SNEIT? (see Appendix B) NOx (NEI) <u>24.43</u> tpy ≥ 40 tpy?      PM-10 (NEI) <u>12.98</u> tpy ≥ 15 tpy? SO2 (NEI) _____ tpy ≥ 40 tpy?      PM-2.5 (NEI) _____ tpy ≥ 10 tpy? CO (NEI) _____ tpy ≥ 100 tpy?      _____ (NEI) _____ tpy PM (NEI) _____ tpy ≥ 25 tpy?      _____ (NEI) _____ tpy		X	YES - See NOTE #8, go to 8 NO - See NOTE #5
7. Has the applicant complied with all of the following permit requirements (Re: section 231-7.3): a. Air quality impact analyses (Re: subdivision 231-7.3(a)). b. BACT review (Re: subdivision 231-7.3(b)). c. Source impact analysis (Re: subdivision 231-7.3(c)). d. Source information (Re: subdivision 231-7.3(d)). e. Additional impact analyses (Re: subdivision 231-7.3(e)).			YES - See NOTE #9 NO - See NOTE #6

(continued)

<p>8. Has the applicant complied with all of the following permit requirements(Re: section 231-8.4):</p> <ul style="list-style-type: none"> <li>a. Air quality impact analyses (Re: subdivision 231-8.4(a)).</li> <li>b. BACT review (Re: subdivision 231-8.4(b)).</li> <li>c. Source impact analysis (Re: subdivision 231-8.4(c)).</li> <li>d. Source information (Re: subdivision 231-8.4(d))</li> <li>e. Additional impact analyses (Re: subdivision 231-8.4(e))</li> </ul>			<p>YES - See NOTE #9</p> <p>NO - See NOTE #6</p>
<p>NOTE #1 - For facilities listed in source category list in Appendix A MFT is 100 tpy, otherwise MFT is 250 tpy</p>			
<p>NOTE #2 - Not Subject to Subpart 231-7 or 8 but may be subject to 231-3.6(c).</p>			
<p>NOTE #3 - Not subject to Subpart 231-7 review, however, if Facility PTE after modification exceeds applicable MFT, see Appendix B, a permit with new PTE limit is required (Re: subdivision 231-7.1(b)).</p>			
<p>NOTE #4- Not subject to Subpart 231-8 review, however must comply with applicable Section 231-11.2 reasonable possibility requirements for insignificant modifications.</p>			
<p>NOTE #5- Must comply with applicable Section 231-8.2 and 231-11.1 Netting requirements.</p>			
<p>NOTE #6 - Notice of incomplete application should be sent.</p>			
<p>NOTE #7 - Modification subject to Subpart 231-7 for each Regulated NSR Contaminant for which PEP ≥ SPT (See Appendix B)</p> <p>Ambient air monitoring is required in accordance with Subpart 231-12</p> <p>Air quality impact analysis is required in accordance with Subpart 231-12</p> <p>BACT required in accordance with 231-7.6 for each emission source that is part of the modification and which emits any such Regulated NSR Contaminant</p>			
<p>NOTE #8 - Modification Subject to Subpart 231-8 for each Regulated NSR Contaminant with NEI ≥ SNEIT (See Appendix B)</p> <p>Ambient air monitoring is required in accordance with Subpart 231-12</p> <p>Air quality impact analysis in accordance with Subpart 231-12</p> <p>BACT required in accordance with 231-8.7 for each emission source that is part of the modification and which emits any such Regulated NSR Contaminant</p>			
<p>NOTE #9 - Detailed PSD review may proceed.</p>			

<b>SUBPART 231-8, NET EMISSION INCREASE ANALYSIS WORKSHEET</b> (Re: paragraph 231-4.1(b)(29))							
FACILITY NAME: NYC-DOC-Rikers Island							
APPLICATION DEC ID# 2-6007-00259							
EMISSION SOURCE ID#s U0011, _____, _____, _____, _____, _____							
<b>NOTE:</b> A net emission increase analysis is required for each Regulated NSR Contaminant for which the PEP equals or exceeds the SPT, see Appendix B.							
Common Regulated NSR Contaminant(s) for which PEP ≥ SPT (circle): NOx SO2 CO PM PM-10 PM-2.5							
List Other Contaminants for which PEP ≥ SPT: _____							
<b>Contemporaneous Period:</b>							
The period which begins 5 years prior to the date construction of the Proposed modification is scheduled to commence, and ends with the date the modification is scheduled to commence operation, as stated in the permit application. (Re: FC-11 and paragraph 231-4.1(b)(12)).							
Scheduled commence construction date: 6/1/2011							
Scheduled commence operation date: 7/18/2012*							
Start date of contemporaneous period: 6/1/2006							
End date of contemporaneous period: 7/18/2012* (generally this is the same as the scheduled commence operation date)							
<b>Net Emission Increase</b> - The aggregate increase in emissions of a regulated NSR contaminant in tpy at an existing major facility resulting from the sum of:							
(i) the project emission potential of the modification; and							
(ii) every creditable emission increase at the facility which is contemporaneous and for which an emission offset was not obtained; and							
(iii) any ERC at the facility, or portion thereof, selected by the applicant which is contemporaneous and which was not previously used as part of an emission offset, an internal offset, or relied upon in the issuance of a permit under this Part.							
<b>Net Emission Increase Summary</b>							
	NOx	SO2	CO	PM	PM-10	PM-2.5	
Project Emission Potential (tpy, use WKS-13)	42.00				15.77		
Contemporaneous creditable emission increase/ERC (+tpy, use WKS-11B)	-17.57				-2.79		
NET EMISSION INCREASE (+tpy)	24.43				12.98		

\*Per 231-6.2(c)(1): The NYC-DOC-Rikers Island Facility is submitting a permit application accepting a condition prohibiting the proposed modification from commencing operation until after the close of the contemporaneous period for the previously permitted modification (PLM units under Emission Unit U00010, Emission Sources: 00010 through 00028, previously permitted on 7/17/2007, with a contemporaneous period close date of 7/17/2012). The proposed modification for the cogeneration system will commence operation after 7/17/2012.

**SUBPART 231-8, CONTEMPORANEOUS CREDITABLE EMISSION INCREASES/EMISSION REDUCTION CREDITS WORKSHEET**

FACILITY NAME: NYC-DOC-Rikers Island  
 APPLICATION DEC ID# 2-6007-00259

Regulated NSR Contaminants (circle one/add one): (NOx) SO2 CO PM (PM-10) PM-2.5 \_\_\_\_\_

Contemporaneous Period, See NOTE #1: 6/1/2006 – 7/18/2012

EMISSION SOURCE ID#s U0011, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

1. Emission Source	2. Description of contemporaneous change at source	3. Date of occurrence	4. Contemporaneous creditable emission increase/ERC (±tpy), See NOTES #2, #3
U0001 including Emission Sources 00001, 00002, 00003 and 00004	Curtailment of operations and creation of ERCs	7/18/2012	<u>NOx / PM10</u> -6.81 / -1.15
U0002 including Emission Sources 00005 and 00006	Curtailment of operations and creation of ERCs	7/18/2012	-6.83 / -1.04
U0003 including Emission Sources 00007 and 00008	Curtailment of operations and creation of ERCs	7/18/2012	-3.93 / -0.60

Sum of all increases/decreases above	-17.57 tpy / -2.79
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NOTE #1 - *Contemporaneous*. The time period used in a net emission increase determination for a regulated NSR contaminant as follows:

(i) The period beginning five years prior to the proposed commence construction date of the new or modified emission source, and ending with the proposed commence operation date. These dates must be proposed by an applicant in a permit application.

(ii) For facilities proposing to use an alternative operating scenario pursuant to Part 201 of this Title, the period beginning five years prior to the date the application for the permit modification is determined complete by the department, in accordance with Part 621 of this Title, and ending with the final permit issuance date.

(continued)

NOTE #2 -	<i>Creditable emission increase.</i> Any increase in emissions of a regulated NSR contaminant in tpy from an emission source at an existing major facility, other than such an increase from any proposed modified facility under review, which: (i) results from a physical change in, or a change in the method of operation of an emission source(s); and (ii) is quantified as the difference between baseline actual emissions and projected actual emissions.
NOTE #3 -	<i>Emission reduction credit, ERC.</i> The actual decrease in emissions of a regulated NSR contaminant, in tpy, determined in accordance with the requirements of Subpart 231-10 of this Part.

**SUBPART 231-7 & 8, FACILITY POTENTIAL TO EMIT CALCULATION WORKSHEET**

FACILITY NAME: NYC-DOC-Rikers Island  
 APPLICATION DEC ID# 2-6007-00259

**NOTE:** Facility PTE is -

- A. For a proposed new facility - Sum of the PTE of each proposed emission source.
- B. For an existing facility - Sum of the PTE of each existing emission source.

**NOTE:** PTE - The maximum capacity of an air contamination source to emit any regulated air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the emission source to emit a regulated air pollutant, including air pollution control equipment and/or restrictions on the hours of operation, or on the type or amount of material combusted, stored, or processed, shall be treated as part of the design if the limitation is enforceable by the department and the administrator. Fugitive emissions, to the extent that they are quantifiable, are included in determining the potential to emit where required by an applicable requirement. For emergency power generating stationary internal combustion engines, the potential to emit will be based on a maximum of 500 hours of operation per year per engine unless a more restrictive limitation exists in a permit or registration. (Re: subdivision 200.1(b))

**Regulated NSR Contaminant(s):** (circle/add) NOx SO2 CO PM PM-10 PM-2.5

**Facility Emission Potential Calculation**

EMISSION SOURCE ID#	PTE of NOx (tpy)	PTE of SO2 (tpy)	PTE of CO (tpy)	PTE of PM (tpy)	PTE of PM-10 (tpy)	PTE of PM-2.5 (tpy)	PTE of _____ (tpy)	PTE of _____ (tpy)
U0001 including Emission Sources 00001, 00002, 00003 and 00004	175.20	225.35	89.30		18.88			
U0002 including Emission Sources 00005 and 00006	134.55	173.07	68.58		14.50			
U0003 including Emission Sources 00007 and 00008	134.55	173.07	68.58		14.50			
U0009 including Emission Source 0000P	---	---	---		---			
U0010 including Emission Sources 00010 through 00028	22.50	3.07	10.42		1.33			
Facility Potential To Emit (tpy) = (Sum of the potential to emit of each emission source)	466.81	574.55	236.89		49.22			

SUBPART 231-7 & 8, PROJECT EMISSION POTENTIAL CALCULATION WORKSHEET			
FACILITY NAME: NYC-DOC-Rikers Island			
APPLICATION DEC ID# 2-6007-00259			
EMISSION SOURCE ID#s U0011, _____, _____, _____, _____, _____, _____			
	Y	N	ACTION
1. Does the proposed modification involve addition of one or more new emission sources?	X		YES - Go to 2 NO - Go to 3
2. For each new emission source, what is the PTE (Re: subdivision 200.1(b)) in tpy of each Regulated NSR Contaminant?  ES ID# U0011 NOx = 42.00 _____ SO2 = 1.74 _____ CO = 53.98 _____ PM = 15.77 _____ PM-10 = 15.77 _____ PM-2.5 = _____ _____ = _____ _____ = _____	-	-	See NOTE #1, Go to 4
3. Therefore, the modification is of one or more existing emission sources.			Go to 5
4. Does the modification involve one or more existing emission sources?		X	YES - Go to 5 NO - Go to 7
5. For each existing emission source undergoing modification, what is the BAE (Re: paragraph 231-4.1(b)(4)) in tpy of each Regulated NSR Contaminant?  ES ID# _____ NOx = _____ SO2 = _____ CO = _____ PM = _____ PM-10 = _____ PM-2.5 = _____ _____ = _____ _____ = _____	-	-	See NOTE #2, go to 6
6. For each existing emission source undergoing modification, what is the PAE (Re: paragraph 231-4.1(b)(40)) or the PTE (Re: subdivision 200.1(b)) (if used in lieu of PAE) in tpy of each Regulated NSR Contaminant after modification?  ES ID# _____ NOx = _____ SO2 = _____ CO = _____ PM = _____ PM-10 = _____ PM-2.5 = _____ _____ = _____ _____ = _____ Please indicate whether the numbers are PTE or PAE: PTE <input type="checkbox"/> PAE <input type="checkbox"/>	-	-	See NOTES #1, #3, go to 7

(continued)

**7. Project Emission Potential of NOx = Sum of:**

- a. Row 2 for NOx from each new emission source

$$42.00 + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \text{ tpy};$$

and

- b. the difference between (Row 6 - Row 5) for NOx from each modification of an existing emission source

$$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \text{ tpy}$$

$$\text{PEP of NOx} = a + b = \underline{42.00} \text{ tpy}$$

**Project Emission Potential of SO2 = Sum of:**

- a. Row 2 for SO2 from each new emission source

$$1.74 + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \text{ tpy};$$

and

- b. the difference between (Row 6 - Row 5) for SO2 from each modification of an existing emission source

$$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \text{ tpy}$$

$$\text{PEP of SO2} = a + b = \underline{1.74} \text{ tpy}$$

**Project Emission Potential of CO = Sum of:**

- a. Row 2 for CO from each new emission source

$$53.98 + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \text{ tpy};$$

and

- b. the difference between (Row 6 - Row 5) for CO from each modification of an existing emission source

$$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \text{ tpy}$$

$$\text{PEP of CO} = a + b = \underline{53.98} \text{ tpy}$$

**Project Emission Potential of PM = Sum of:**

- a. Row 2 for PM from each new emission source

$$15.77 + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \text{ tpy};$$

and

- b. the difference between (Row 6 - Row 5) for PM from each modification of an existing emission source

$$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \text{ tpy}$$

$$\text{PEP of PM} = a + b = \underline{15.77} \text{ tpy}$$

**Project Emission Potential of PM-10 = Sum of:**

- a. Row 2 for PM-10 from each new emission source

$$15.77 + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \text{ tpy};$$

and

- b. the difference between (Row 6 - Row 5) for PM-10 from each modification of an existing emission source

$$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \text{ tpy}$$

$$\text{PEP of PM-10} = a + b = \underline{15.77} \text{ tpy}$$

**Project Emission Potential of PM-2.5 = Sum of:**

- a. Row 2 for PM-2.5 from each new emission source

$$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \text{ tpy};$$

and

- b. the difference between (Row 6 - Row 5) for PM-2.5 from each modification of an existing emission source

$$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \text{ tpy}$$

$$\text{PEP of PM-2.5} = a + b = \underline{\hspace{1cm}} \text{ tpy}$$

(continued)

**Project Emission Potential of \_\_\_\_\_ = Sum of:**

a. Row 2 for \_\_\_\_\_ from each new emission source  
 \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_ tpy;

**and**

b. the difference between (Row 6 - Row 5) for \_\_\_\_\_ from each modification of an existing emission source  
 \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_ tpy

PEP of \_\_\_\_\_ = a + b = \_\_\_\_\_ tpy

**Project Emission Potential of \_\_\_\_\_ = Sum of:**

a. Row 2 for \_\_\_\_\_ from each new emission source  
 \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_ tpy;

**and**

b. the difference between (Row 6 - Row 5) for \_\_\_\_\_ from each modification of an existing emission source  
 \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_ tpy

PEP of \_\_\_\_\_ = a + b = \_\_\_\_\_ tpy

NOTE #1 - *Potential to emit.* The maximum capacity of an air contamination source to emit any regulated air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the emission source to emit a regulated air pollutant, including air pollution control equipment and/or restrictions on the hours of operation, or on the type or amount of material combusted, stored, or processed, shall be treated as part of the design if the limitation is enforceable by the department and the administrator. Fugitive emissions, to the extent that they are quantifiable, are included in determining the potential to emit where required by an applicable requirement. For emergency power generating stationary internal combustion engines, the potential to emit will be based on a maximum of 500 hours of operation per year per engine unless a more restrictive limitation exists in a permit or registration.

NOTE #2 - *Baseline actual emissions.* The annual rate of emissions of a regulated NSR contaminant from an emission source determined as follows:

(i) The average rate (as defined in Clauses a, b, c, and, d below), in tpy, at which an emission source physically emitted the contaminant during its baseline period, determined by using the source's actual operating hours, production rates, and types of materials processed, stored, or combusted during the selected baseline period.

(a) The average rate includes fugitive emissions to the extent quantifiable if the facility belongs to one of the source categories listed in Table 9 of Subpart 231-13 of this Part, and emissions associated with startups, shutdowns, and malfunctions.

(b) The average rate must be adjusted downward to exclude any non compliant emissions that occurred while the emission source was operating above any applicable emission limitation.

(c) Except for electric utility steam generating units, the average rate must be adjusted downward to exclude any emissions that exceeded an emission limitation with which the emission source must currently comply, had such emission source been required to comply with such limitations during the baseline period. However, if an emission limitation is part of a maximum achievable control technology standard that the administrator proposed or promulgated under 40 CFR Part 63, the baseline actual emissions rate need only be adjusted if the State has taken credit for such emissions reductions in an attainment demonstration or maintenance plan consistent with the requirements of 40 CFR 51.165(a)(3)(ii)(G). For the purposes of a creditable emission increase or emission reduction credit used for netting, currently means at the time that the increase or reduction actually occurred.

(continued)

(d) For a regulated NSR contaminant, when a project involves multiple emissions sources, one baseline period must be used to determine the baseline actual emissions of the emission sources being modified. A different baseline period cannot be used for each regulated NSR contaminant.

(ii) The applicant must use a reliable basis for quantifying the baseline actual emissions. Continuous emissions monitoring (CEM) data or stack test data approved by the department must be used if the facility is required to generate such data. If such data is not available, acceptable bases for quantifying baseline actual emissions include, but are not limited to, emission statements, EPA's AP-42 emission factors, and fuel and solvent purchase records, with department approval.

NOTE #3 -

*Projected actual emissions.* The maximum annual rate, in tpy, at which an existing emission source is projected to emit a regulated NSR contaminant in any one of the five years (12-month period) following the date the source commences operation after a modification, or in any one of the 10 years following that date if the project involves increasing the emission source's design capacity or its potential to emit that regulated NSR contaminant and full utilization of the emission source would result in exceeding the applicable significant project threshold in Tables 3, 4 or 6 of Subpart 231-13 of this Part or a significant net emissions increase at the major facility. Projected actual emissions are calculated only for existing major facilities.

(i) In determining the projected actual emissions as defined in this Section (before beginning actual construction), the owner or operator of the major facility:

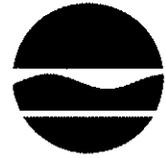
(a) must consider all relevant information, including but not limited to, historical operational data, the facility's own representations, the facility's expected business activity and the facility's highest projections of business activity, the facility's filings with the State or federal regulatory authorities, and compliance plans under the approved State Implementation Plan; and

(b) must include fugitive emissions to the extent quantifiable if the facility belongs to one of the source categories listed in Table 9 of Subpart 231-13 of this Part, and emissions associated with startups and shutdowns; and

(c) may exclude, in calculating any increase in emissions that results from the particular project, that portion of the emission source's emissions following the project that the existing emission source could have accommodated during the consecutive 24 month period used to establish the baseline actual emissions and that are also unrelated to the particular project.

(ii) In lieu of using the method set out in Subparagraph (i) of this Paragraph, the owner or operator of the facility may elect to use the potential to emit of the emission source(s), in tpy.

**Attachment G**  
**ERC Forms – Nonattainment Pollutants**



Alexander B. Grannis  
 Commissioner

## EMISSION REDUCTION CREDIT (ERC) QUANTIFICATION FORM

**(Use This Form For Part 231 Nonattainment Contaminants Only)**

**(NOTE: NO<sub>x</sub>, VOC & PM-10 EMISSION REDUCTIONS PRIOR TO 11/15/90 CANNOT BE APPROVED)**  
**(NOTE: PM-2.5 EMISSION REDUCTIONS PRIOR TO 4/5/05 CANNOT BE APPROVED)**

Name of Facility Creating ERC(s): NYC-DOC Rikers Island  
 Address: 17-25 Hazen Street, East Elmhurst, NY 11370  
 DEC ID#: 2-6007-00259 Emission Source ID#: U0001  
 Contact Name: Curtis Pierre Title: 718-546-1488 Phone #: 718-546-1488

NOTE: Contact name and phone number will be entered into the NYS ERC Registry which is available on DEC's website.

I RAMON LI (print name of facility's authorized representative) certify that the information contained herein is true to the best of my knowledge, information and belief.

Signature: *Ramon Li* Title: Technical Director Date: 09/16/10

Reduction Type (check one box):  Past  Future\* (Note: Must be linked to proposed major facility or modification to be eligible for approval – Ref: 231-10.1(m))

**\*Provide The Following Information For The Facility Proposing To Use The Future ERC(s):**

Facility Name: NYC-DOC-Rikers Island DEC ID#: 2-6007-00259  
 Address: 17-25 Hazen Street, East Elmhurst, NY 11370

Preparer's Name: Ramon Li, P.E. Title: Technical Director, AKRF, Inc.

**FOR DEC USE ONLY**

Approved ERCs

VOC: _____ TPY	NO <sub>x</sub> : _____ TPY	Permit Number: _____
PM-2.5: _____ TPY	PM-10: _____ TPY	ENB Notice Date: ____/____/____
Reviewer's Name: _____		Permit Mod Issuance Date: ____/____/____
Signature: _____		Permit Surrender Date: ____/____/____
Date: ____/____/____		ERC Approval Letter Date: ____/____/____

**Determination of the Baseline Period for the reduction(s)**

A.1 Emission Reduction Nonattainment Contaminant (circle **all** that apply to a specific emission reduction action at an emission source):

NO<sub>x</sub>      VOC      PM-2.5      PM-10

A.2 Emission Reduction Date: 07 / 18 / 2012

NOTE: The emission reduction date is the date that the emission reduction(s) physically occurred (past reduction), or the date the reduction(s) is/are scheduled to occur (future reduction).

A.3 Describe action(s) taken (or to be taken) to reduce emissions for which ERC(s) is/are requested:

The curtailment of operation of the existing boilers due to operation of the new cogeneration system.

A.4 Baseline Period (231-4.1(b)(7)) for the emission reduction(s): 01 / 01 / 07 to 12 / 31 / 2008

Line A.4 NOTES:

1. The same Baseline Period must be used for all applicable contaminants identified in A.1 above.
2. For an emission reduction which has physically occurred (past reduction), the Baseline Period consists of any 24 consecutive months within the five (5) years immediately preceding the emission reduction date (Line A.2 above).
3. For a future emission reduction, the Baseline Period consists of any 24 consecutive months within the five (5) years immediately preceding the date of receipt by the Department of the permit application for the project which proposes to use the emission reduction credits as emission offsets or for netting purposes.

DEC ID#: 2-6007-00259

Emission Source ID#: U0001

**Determination of Baseline Actual Emissions for the reduction(s)**

B.1 Enter the Baseline Actual Emissions (231-4.1(b)(4)) in tons per year (tpy) for each applicable nonattainment contaminant (attach data summaries and calculations):

NO<sub>x</sub> 21.01      VOC \_\_\_\_\_      PM-2.5 \_\_\_\_\_      PM-10 \_\_\_\_\_

B.2 State Register or Federal Register publication notice date proposing any RACT, MACT or other control requirement (OCR) that may be applicable to the emission source for which ERCs are requested:

<u>Contaminant</u>	<u>RACT Date</u>	<u>MACT Date</u>	<u>OCR Date *</u>
NO <sub>x</sub>	<u>01/01/2010</u>	<u>/ /</u>	<u>/ /</u>
VOC	<u>/ /</u>	<u>/ /</u>	<u>/ /</u>
PM-2.5	<u>/ /</u>	<u>/ /</u>	<u>/ /</u>
PM-10	<u>/ /</u>	<u>/ /</u>	<u>/ /</u>

\*- Identify OCR that applies: \_\_\_\_\_

B.3 Emission Reduction Date (from Line A.2 on page 2) 7 / 18 / 2012

B.4 What are the Baseline Actual Emissions reflecting RACT, if applicable (tpy)? (see notes)

NO<sub>x</sub> 14.81      VOC \_\_\_\_\_      PM-2.5 \_\_\_\_\_      PM-10 \_\_\_\_\_

B.5 What are the Baseline Actual Emissions reflecting MACT, if applicable (tpy)? (see notes)

NO<sub>x</sub> \_\_\_\_\_      VOC \_\_\_\_\_      PM-2.5 \_\_\_\_\_      PM-10 \_\_\_\_\_

B.6 What are the Baseline Actual Emissions reflecting OCR, if applicable (tpy)? (see notes)

NO<sub>x</sub> \_\_\_\_\_      VOC \_\_\_\_\_      PM-2.5 \_\_\_\_\_      PM-10 \_\_\_\_\_

Lines B.4, B.5 and B.6 NOTES.

1. Attach data summaries and calculations.
2. For a past emission reduction that physically occurred after a State or Federal Register publication date proposing an applicable RACT, MACT or OCR, the Baseline Actual Emissions must be adjusted to reflect the applicable RACT, MACT or OCR.
3. For a future emission reduction, if the date that the emission reduction credits are approved is after a State or Federal Register publication date proposing an applicable RACT, MACT or OCR, then the Baseline Actual Emissions must be adjusted to reflect the applicable RACT, MACT or OCR.

DEC ID#: 2-6007-00259

Emission Source ID#: U0001

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**Determination of Emission Reduction Credit(s)**

B.7 Enter the lesser of the Baseline Actual Emissions from Lines B.1, B.4, B.5 or B.6 (tpy):

NO<sub>x</sub> 14.81      VOC \_\_\_\_\_      PM-2.5 \_\_\_\_\_      PM-10 \_\_\_\_\_

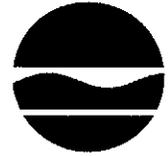
B.8 Enter the future Potential-To-Emit (PTE) as defined in 6 NYCRR Part 200 (tpy):

NO<sub>x</sub> 8.00      VOC \_\_\_\_\_      PM-2.5 \_\_\_\_\_      PM-10 \_\_\_\_\_

B.9 Subtract Line B.8 from Line B.7. These are the emission reduction credits (tpy). If Line B.8 is greater than Line B.7, enter zero.

NO<sub>x</sub> 6.81      VOC \_\_\_\_\_      PM-2.5 \_\_\_\_\_      PM-10 \_\_\_\_\_

**New York State Department of Environmental Conservation**  
**Division of Air Resources**  
 Bureau of Stationary Sources, 2<sup>nd</sup> Floor  
 625 Broadway, Albany, New York 12233-3254  
 Phone: (518) 402-8403 • FAX: (518) 402-9035  
 Website: [www.dec.ny.gov](http://www.dec.ny.gov)



Alexander B. Grannis  
 Commissioner

## EMISSION REDUCTION CREDIT (ERC) QUANTIFICATION FORM

**(Use This Form For Part 231 Nonattainment Contaminants Only)**

**(NOTE: NO<sub>x</sub>, VOC & PM-10 EMISSION REDUCTIONS PRIOR TO 11/15/90 CANNOT BE APPROVED)**  
**(NOTE: PM-2.5 EMISSION REDUCTIONS PRIOR TO 4/5/05 CANNOT BE APPROVED)**

Name of Facility Creating ERC(s): NYC-DOC Rikers Island  
 Address: 17-25 Hazen Street, East Elmhurst, NY 11370  
 DEC ID#: 2-6007-00259 Emission Source ID#: U0002  
 Contact Name: Curtis Pierre Title: 718-546-1488 Phone #: 718-546-1488

NOTE: Contact name and phone number will be entered into the NYS ERC Registry which is available on DEC's website.

I Ramon Li (print name of facility's authorized representative) certify that the information contained herein is true to the best of my knowledge, information and belief.

Signature: *Ramon Li* Title: Technical Director Date: 09/16/10

Reduction Type (check one box):  Past  Future\* (Note: Must be linked to proposed major facility or modification to be eligible for approval – Ref: 231-10.1(m))

**\*Provide The Following Information For The Facility Proposing To Use The Future ERC(s):**

Facility Name: NYC-DOC-Rikers Island DEC ID#: 2-6007-00259  
 Address: 17-25 Hazen Street, East Elmhurst, NY 11370

Preparer's Name: Ramon Li, P.E. Title: Technical Director, AKRF, Inc.

**FOR DEC USE ONLY**

Approved ERCs

VOC: \_\_\_\_\_ TPY      NO<sub>x</sub>: \_\_\_\_\_ TPY      Permit Number: \_\_\_\_\_

PM-2.5: \_\_\_\_\_ TPY      PM-10: \_\_\_\_\_ TPY      ENB Notice Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Reviewer's Name: \_\_\_\_\_      Permit Mod Issuance Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Signature: \_\_\_\_\_      Permit Surrender Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Date: \_\_\_\_/\_\_\_\_/\_\_\_\_      ERC Approval Letter Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

DEC ID#: 2-6007-00259

Emission Source ID#: U0002

**Determination of the Baseline Period for the reduction(s)**

A.1 Emission Reduction Nonattainment Contaminant (circle **all** that apply to a specific emission reduction action at an emission source):

NO<sub>x</sub>      VOC      PM-2.5      PM-10

A.2 Emission Reduction Date: 7 / 18 / 2012

NOTE: The emission reduction date is the date that the emission reduction(s) physically occurred (past reduction), or the date the reduction(s) is/are scheduled to occur (future reduction).

A.3 Describe action(s) taken (or to be taken) to reduce emissions for which ERC(s) is/are requested:

The curtailment of operation of the existing boilers due to operation of the new cogeneration system.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

A.4 Baseline Period (231-4.1(b)(7)) for the emission reduction(s): 01 / 01 / 07 to 12 / 31 / 2008

Line A.4 NOTES:

1. The same Baseline Period must be used for all applicable contaminants identified in A.1 above.
2. For an emission reduction which has physically occurred (past reduction), the Baseline Period consists of any 24 consecutive months within the five (5) years immediately preceding the emission reduction date (Line A.2 above).
3. For a future emission reduction, the Baseline Period consists of any 24 consecutive months within the five (5) years immediately preceding the date of receipt by the Department of the permit application for the project which proposes to use the emission reduction credits as emission offsets or for netting purposes.

DEC ID#: 2-6007-00259

Emission Source ID#: U0002

**Determination of Baseline Actual Emissions for the reduction(s)**

B.1 Enter the Baseline Actual Emissions (231-4.1(b)(4)) in tons per year (tpy) for each applicable nonattainment contaminant (attach data summaries and calculations):

NO<sub>x</sub> 12.48      VOC \_\_\_\_\_      PM-2.5 \_\_\_\_\_      PM-10 \_\_\_\_\_

B.2 State Register or Federal Register publication notice date proposing any RACT, MACT or other control requirement (OCR) that may be applicable to the emission source for which ERCs are requested:

<u>Contaminant</u>	<u>RACT Date</u>	<u>MACT Date</u>	<u>OCR Date *</u>
NO <sub>x</sub>	<u>01/18/2010</u>	<u>/ /</u>	<u>/ /</u>
VOC	<u>/ /</u>	<u>/ /</u>	<u>/ /</u>
PM-2.5	<u>/ /</u>	<u>/ /</u>	<u>/ /</u>
PM-10	<u>/ /</u>	<u>/ /</u>	<u>/ /</u>

\*- Identify OCR that applies: \_\_\_\_\_

B.3 Emission Reduction Date (from Line A.2 on page 2) 7 / 18 / 2012

B.4 What are the Baseline Actual Emissions reflecting RACT, if applicable (tpy)? (see notes)

NO<sub>x</sub> 8.83      VOC \_\_\_\_\_      PM-2.5 \_\_\_\_\_      PM-10 \_\_\_\_\_

B.5 What are the Baseline Actual Emissions reflecting MACT, if applicable (tpy)? (see notes)

NO<sub>x</sub> \_\_\_\_\_      VOC \_\_\_\_\_      PM-2.5 \_\_\_\_\_      PM-10 \_\_\_\_\_

B.6 What are the Baseline Actual Emissions reflecting OCR, if applicable (tpy)? (see notes)

NO<sub>x</sub> \_\_\_\_\_      VOC \_\_\_\_\_      PM-2.5 \_\_\_\_\_      PM-10 \_\_\_\_\_

Lines B.4, B.5 and B.6 NOTES.

1. Attach data summaries and calculations.
2. For a past emission reduction that physically occurred after a State or Federal Register publication date proposing an applicable RACT, MACT or OCR, the Baseline Actual Emissions must be adjusted to reflect the applicable RACT, MACT or OCR.
3. For a future emission reduction, if the date that the emission reduction credits are approved is after a State or Federal Register publication date proposing an applicable RACT, MACT or OCR, then the Baseline Actual Emissions must be adjusted to reflect the applicable RACT, MACT or OCR.

DEC ID#: 2-6007-00259

Emission Source ID#: U0002

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**Determination of Emission Reduction Credit(s)**

B.7 Enter the lesser of the Baseline Actual Emissions from Lines B.1, B.4, B.5 or B.6 (tpy):

NO<sub>x</sub> 8.83      VOC \_\_\_\_\_      PM-2.5 \_\_\_\_\_      PM-10 \_\_\_\_\_

B.8 Enter the future Potential-To-Emit (PTE) as defined in 6 NYCRR Part 200 (tpy):

NO<sub>x</sub> 2.00      VOC \_\_\_\_\_      PM-2.5 \_\_\_\_\_      PM-10 \_\_\_\_\_

B.9 Subtract Line B.8 from Line B.7. These are the emission reduction credits (tpy). If Line B.8 is greater than Line B.7, enter zero.

NO<sub>x</sub> 6.83      VOC \_\_\_\_\_      PM-2.5 \_\_\_\_\_      PM-10 \_\_\_\_\_



Alexander B. Grannis  
 Commissioner

## EMISSION REDUCTION CREDIT (ERC) QUANTIFICATION FORM

**(Use This Form For Part 231 Nonattainment Contaminants Only)**

**(NOTE: NO<sub>x</sub>, VOC & PM-10 EMISSION REDUCTIONS PRIOR TO 11/15/90 CANNOT BE APPROVED)**  
**(NOTE: PM-2.5 EMISSION REDUCTIONS PRIOR TO 4/5/05 CANNOT BE APPROVED)**

Name of Facility Creating ERC(s): NYC-DOC Rikers Island  
 Address: 17-25 Hazen Street, East Elmhurst, NY 11370  
 DEC ID#: 2-6007-00259 Emission Source ID#: U0003  
 Contact Name: Curtis Pierre Title: 718-546-1488 Phone #: 718-546-1488

NOTE: Contact name and phone number will be entered into the NYS ERC Registry which is available on DEC's website.

I Ramon Li (print name of facility's authorized representative) certify that the information contained herein is true to the best of my knowledge, information and belief.

Signature: [Signature] Title: Technical Director Date: 09 / 16 / 10

Reduction Type (check one box):  Past  Future\* (Note: Must be linked to proposed major facility or modification to be eligible for approval – Ref: 231-10.1(m))

**\*Provide The Following Information For The Facility Proposing To Use The Future ERC(s):**

Facility Name: NYC-DOC-Rikers Island DEC ID#: 2-6007-00259  
 Address: 17-25 Hazen Street, East Elmhurst, NY 11370

Preparer's Name: Ramon Li, P.E. Title: Technical Director, AKRF, Inc.

**FOR DEC USE ONLY**

Approved ERCs

VOC: \_\_\_\_\_ TPY      NO<sub>x</sub>: \_\_\_\_\_ TPY      Permit Number: \_\_\_\_\_

PM-2.5: \_\_\_\_\_ TPY      PM-10: \_\_\_\_\_ TPY      ENB Notice Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Reviewer's Name: \_\_\_\_\_      Permit Mod Issuance Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Signature: \_\_\_\_\_      Permit Surrender Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_      ERC Approval Letter Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

**Determination of the Baseline Period for the reduction(s)**

A.1 Emission Reduction Nonattainment Contaminant (circle **all** that apply to a specific emission reduction action at an emission source):

NO<sub>x</sub>      VOC      PM-2.5      PM-10

A.2 Emission Reduction Date: 07/18/2012

NOTE: The emission reduction date is the date that the emission reduction(s) physically occurred (past reduction), or the date the reduction(s) is/are scheduled to occur (future reduction).

A.3 Describe action(s) taken (or to be taken) to reduce emissions for which ERC(s) is/are requested:

The curtailment of operation of the existing boilers due to operation of the new cogeneration system.

A.4 Baseline Period (231-4.1(b)(7)) for the emission reduction(s): 01/01/07 to 12/31/2008

Line A.4 NOTES:

1. The same Baseline Period must be used for all applicable contaminants identified in A.1 above.
2. For an emission reduction which has physically occurred (past reduction), the Baseline Period consists of any 24 consecutive months within the five (5) years immediately preceding the emission reduction date (Line A.2 above).
3. For a future emission reduction, the Baseline Period consists of any 24 consecutive months within the five (5) years immediately preceding the date of receipt by the Department of the permit application for the project which proposes to use the emission reduction credits as emission offsets or for netting purposes.

DEC ID#: 2-6007-00259

Emission Source ID#: U0003

**Determination of Baseline Actual Emissions for the reduction(s)**

B.1 Enter the Baseline Actual Emissions (231-4.1(b)(4)) in tons per year (tpy) for each applicable nonattainment contaminant (attach data summaries and calculations):

NO<sub>x</sub> 6.97      VOC \_\_\_\_\_      PM-2.5 \_\_\_\_\_      PM-10 \_\_\_\_\_

B.2 State Register or Federal Register publication notice date proposing any RACT, MACT or other control requirement (OCR) that may be applicable to the emission source for which ERCs are requested:

<u>Contaminant</u>	<u>RACT Date</u>	<u>MACT Date</u>	<u>OCR Date *</u>
NO <sub>x</sub>	<u>01/01/2010</u>	<u>/ /</u>	<u>/ /</u>
VOC	<u>/ /</u>	<u>/ /</u>	<u>/ /</u>
PM-2.5	<u>/ /</u>	<u>/ /</u>	<u>/ /</u>
PM-10	<u>/ /</u>	<u>/ /</u>	<u>/ /</u>

\*- Identify OCR that applies: \_\_\_\_\_

B.3 Emission Reduction Date (from Line A.2 on page 2) 07/18/2012

B.4 What are the Baseline Actual Emissions reflecting RACT, if applicable (tpy)? (see notes)

NO<sub>x</sub> 4.93      VOC \_\_\_\_\_      PM-2.5 \_\_\_\_\_      PM-10 \_\_\_\_\_

B.5 What are the Baseline Actual Emissions reflecting MACT, if applicable (tpy)? (see notes)

NO<sub>x</sub> \_\_\_\_\_      VOC \_\_\_\_\_      PM-2.5 \_\_\_\_\_      PM-10 \_\_\_\_\_

B.6 What are the Baseline Actual Emissions reflecting OCR, if applicable (tpy)? (see notes)

NO<sub>x</sub> \_\_\_\_\_      VOC \_\_\_\_\_      PM-2.5 \_\_\_\_\_      PM-10 \_\_\_\_\_

Lines B.4, B.5 and B.6 NOTES.

1. Attach data summaries and calculations.
2. For a past emission reduction that physically occurred after a State or Federal Register publication date proposing an applicable RACT, MACT or OCR, the Baseline Actual Emissions must be adjusted to reflect the applicable RACT, MACT or OCR.
3. For a future emission reduction, if the date that the emission reduction credits are approved is after a State or Federal Register publication date proposing an applicable RACT, MACT or OCR, then the Baseline Actual Emissions must be adjusted to reflect the applicable RACT, MACT or OCR.

DEC ID#: 2-6007-00259

Emission Source ID#: U0003

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**Determination of Emission Reduction Credit(s)**

B.7 Enter the lesser of the Baseline Actual Emissions from Lines B.1, B.4, B.5 or B.6 (tpy):

NO<sub>x</sub> 4.93      VOC \_\_\_\_\_      PM-2.5 \_\_\_\_\_      PM-10 \_\_\_\_\_

B.8 Enter the future Potential-To-Emit (PTE) as defined in 6 NYCRR Part 200 (tpy):

NO<sub>x</sub> 1.00      VOC \_\_\_\_\_      PM-2.5 \_\_\_\_\_      PM-10 \_\_\_\_\_

B.9 Subtract Line B.8 from Line B.7. These are the emission reduction credits (tpy). If Line B.8 is greater than Line B.7, enter zero.

NO<sub>x</sub> 3.93      VOC \_\_\_\_\_      PM-2.5 \_\_\_\_\_      PM-10 \_\_\_\_\_

**Attachment H**  
**ERC Forms – Attainment Pollutants**



Alexander B. Grannis  
 Commissioner

**EMISSION REDUCTION CREDIT (ERC) QUANTIFICATION FORM**

**(Use This Form For Attainment (PSD) ERC Netting Purposes Only – Ref: 231-8.2)**

**(NOTE: Emission reduction must be Contemporaneous (231-4.1(b)(12)) to be approved)**

Name of Facility Creating and Using ERC(s) for Netting: NYC-DOC-Rikers Island  
 Address: 17-25 Hazen Street, East Elmhurst, NY 11370  
 DEC ID#: 2-6007-00259 Emission Source ID#: U0001  
 Contact Name: Curtis Pierre Title: Senior Stationary Engineer Phone #: 718-546-1488  
 I RAMON LI (print name of facility's authorized representative) **certify that the information contained herein is true to the best of my knowledge, information and belief.**  
 Signature: [Signature] Title: Technical Director Date: 09/16/10

Reduction Type (check one box):  Past  Future (Note: For future ERC, emission reduction must be linked to proposed modification at existing major facility to be eligible for approval - Ref: 231-10.1(m))

Preparer's name: Ramon Li, P.E. Title: Technical Director, AKRF, Inc.

**FOR DEC USE ONLY**

Approved ERCs for PSD Netting

CO: \_\_\_\_\_ TPY    SO<sub>2</sub>: \_\_\_\_\_ TPY    Permit Number: \_\_\_\_\_  
 NO<sub>x</sub>: \_\_\_\_\_ TPY    PM-2.5: \_\_\_\_\_ TPY    ENB Notice Date: \_\_\_\_/\_\_\_\_/\_\_\_\_  
 PM-10: \_\_\_\_\_ TPY    Permit Mod Issuance/Surrender Date: \_\_\_\_/\_\_\_\_/\_\_\_\_  
 Other Applicable Regulated NSR Contaminant – (See Appendix) \_\_\_\_\_: \_\_\_\_\_ TPY, \_\_\_\_\_: \_\_\_\_\_ TPY  
 Reviewer's Name: \_\_\_\_\_  
 Signature: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

**Determination of the Baseline Period for the reduction(s)**

A.1 Emission Reduction Regulated NSR Contaminant (circle **all** that apply to a specific emission reduction action at an emission source):

NO<sub>x</sub>      PM-2.5      PM-10      CO      SO<sub>2</sub>

Other Applicable Regulated NSR Contaminant - (See Appendix): \_\_\_\_\_: \_\_\_\_\_;  
\_\_\_\_\_:

A.2 Emission Reduction Date: 07 / 18 / 2012

NOTE: The emission reduction date is the date that the emission reduction(s) physically occurred (past reduction), or the date the reduction(s) is/are scheduled to occur (future reduction).

A.3 Describe action(s) taken (or to be taken) to reduce emissions for which ERC(s) is/are requested:  
The curtailment of operation of the existing boilers due to operation of the new cogeneration system.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

A.4 Baseline Period (231-4.1(b)(7)) for the emission reduction(s): 01 / 01 / 2007 to 12 / 31 / 2008

Line A.4 NOTES:

1. The same Baseline Period must be used for all applicable contaminants identified in A.1 above.
2. For an emission reduction which has physically occurred (past reduction), the Baseline Period consists of any 24 consecutive months within the five (5) years immediately preceding the emission reduction date (Line A.2 above).
3. For a future emission reduction, the Baseline Period consists of any 24 consecutive months within the five (5) years immediately preceding the date of receipt by the Department of the permit application for the project which proposes to use the emission reduction credits for netting purposes.

**Determination of Baseline Actual Emissions for the reduction(s)**

B.1 Enter the Baseline Actual Emissions (231-4.1(b)(4)) in tons per year (tpy) for each applicable Regulated NSR Contaminant (attach data summaries and calculations):

NO<sub>x</sub> 21.01 PM-2.5 \_\_\_\_\_ PM-10 2.25 CO \_\_\_\_\_ SO<sub>2</sub> \_\_\_\_\_

Other Applicable Regulated NSR Contaminant - (See Appendix): \_\_\_\_\_: \_\_\_\_\_;  
 \_\_\_\_\_: \_\_\_\_\_

B.2 State Register or Federal Register publication notice date proposing any RACT, MACT or other control requirement (OCR) that may be applicable to the emission source for which ERCs are requested:

<u>Contaminant</u>	<u>RACT Date</u>	<u>MACT Date</u>	<u>OCR Date *</u>
NO <sub>x</sub>	<u>01/01/2010</u>	<u>/ /</u>	<u>/ /</u>
PM-2.5	<u>/ /</u>	<u>/ /</u>	<u>/ /</u>
PM-10	<u>/ /</u>	<u>/ /</u>	<u>/ /</u>
CO	<u>/ /</u>	<u>/ /</u>	<u>/ /</u>
SO <sub>2</sub>	<u>/ /</u>	<u>/ /</u>	<u>/ /</u>
Other:			
_____	<u>/ /</u>	<u>/ /</u>	<u>/ /</u>
_____	<u>/ /</u>	<u>/ /</u>	<u>/ /</u>

\* - Identify OCR that applies: \_\_\_\_\_

B.3 Emission Reduction Date (from Line A.2 on page 2) 07/18 / 2012

B.4 What are the Baseline Actual Emissions reflecting RACT, if applicable (tpy)? (see notes)

NO<sub>x</sub> 14.81 PM-2.5 \_\_\_\_\_ PM-10 \_\_\_\_\_ CO \_\_\_\_\_ SO<sub>2</sub> \_\_\_\_\_

Other Applicable Regulated NSR Contaminant - (See Appendix): \_\_\_\_\_: \_\_\_\_\_;  
 \_\_\_\_\_: \_\_\_\_\_

B.5 What are the Baseline Actual Emissions reflecting MACT, if applicable (tpy)? (see notes)

NO<sub>x</sub> \_\_\_\_\_ PM-2.5 \_\_\_\_\_ PM-10 \_\_\_\_\_ CO \_\_\_\_\_ SO<sub>2</sub> \_\_\_\_\_

Other Applicable Regulated NSR Contaminant - (See Appendix): \_\_\_\_\_: \_\_\_\_\_;  
\_\_\_\_\_:

B.6 What are the Baseline Actual Emissions reflecting OCR, if applicable (tpy)? (see notes)

NO<sub>x</sub> \_\_\_\_\_ PM-2.5 \_\_\_\_\_ PM-10 \_\_\_\_\_ CO \_\_\_\_\_ SO<sub>2</sub> \_\_\_\_\_

Other Applicable Regulated NSR Contaminant - (See Appendix): \_\_\_\_\_: \_\_\_\_\_;  
\_\_\_\_\_:

Lines B.4, B.5 and B.6 NOTES:

1. Attach data summaries and calculations.
2. For a past emission reduction that physically occurred after a State or Federal Register publication date proposing an applicable RACT, MACT or OCR, the Baseline Actual Emissions must be adjusted to reflect the applicable RACT, MACT or OCR.
3. For a future emission reduction, if the date that the emission reduction credits are approved is after a State or Federal Register publication date proposing an applicable RACT, MACT or OCR, then the Baseline Actual Emissions must be adjusted to reflect the applicable RACT, MACT or OCR.

DEC ID#: 2-6007-00259

Emission Source ID#: U0001

---

**Determination of Emission Reduction Credit(s)**

B.7 Enter the lesser of the Baseline Actual Emissions from Lines B.1, B.4, B.5 or B.6 (tpy):

NO<sub>x</sub> 14.81 PM-2.5 \_\_\_\_\_ PM-10 2.25 CO \_\_\_\_\_ SO<sub>2</sub> \_\_\_\_\_

Other Applicable Regulated NSR Contaminant - (See Appendix): \_\_\_\_\_: \_\_\_\_\_;  
\_\_\_\_\_:

B.8 Enter the future Potential-To-Emit (PTE) as defined in 6 NYCRR Part 200 (tpy):

NO<sub>x</sub> 8.00 PM-2.5 \_\_\_\_\_ PM-10 1.10 CO \_\_\_\_\_ SO<sub>2</sub> \_\_\_\_\_

Other Applicable Regulated NSR Contaminant - (See Appendix): \_\_\_\_\_: \_\_\_\_\_;  
\_\_\_\_\_:

B.9 Subtract Line B.8 from Line B.7. These are the emission reduction credits (tpy). If Line B.8 is greater than Line B.7, enter zero.

NO<sub>x</sub> 6.81 PM-2.5 \_\_\_\_\_ PM-10 1.14 CO \_\_\_\_\_ SO<sub>2</sub> \_\_\_\_\_

Other Applicable Regulated NSR Contaminant - (See Appendix): \_\_\_\_\_: \_\_\_\_\_;  
\_\_\_\_\_:

## APPENDIX

Carbon monoxide  
Nitrogen oxides  
Sulfur dioxide  
Particulate matter  
Particulate matter: PM-10 emissions (including condensibles)  
Particulate matter: PM-2.5 emissions (including condensibles)  
Lead (elemental)  
Fluorides  
Sulfuric acid mist  
Hydrogen sulfide (H<sub>2</sub>S)  
Total reduced sulfur (including H<sub>2</sub>S)  
Reduced sulfur compounds (including H<sub>2</sub>S)  
Municipal waste combustor organics (measured as total tetra through octa-chlorinated dibenzo-p-dioxin and dibenzofurans)  
Municipal waste combustor metals (measured as particulate matter)  
Municipal waste combustor acid gases (measured as sulfur dioxide and hydrogen chloride)  
Municipal solid waste landfills emissions (measured as nonmethane organic compounds)  
CFC's 11, 12, 113, 114, 115  
Halons 1211, 1301, 2402  
Any other regulated NSR contaminant



Alexander B. Grannis  
 Commissioner

**EMISSION REDUCTION CREDIT (ERC) QUANTIFICATION FORM**

**(Use This Form For Attainment (PSD) ERC Netting Purposes Only – Ref: 231-8.2)**

**(NOTE: Emission reduction must be Contemporaneous (231-4.1(b)(12)) to be approved)**

Name of Facility Creating and Using ERC(s) for Netting: NYC-DOC-Rikers Island  
 Address: 17-25 Hazen Street, East Elmhurst, NY 11370  
 DEC ID#: 2-6007-00259 Emission Source ID#: U0002  
 Contact Name: Curtis Pierre Title: Senior Stationary Engineer Phone #: 718-546-1488

I RAMON LI (print name of facility's authorized representative) certify that the information contained herein is true to the best of my knowledge, information and belief.

Signature: [Signature] Title: Technical Director Date: 09/16/10

Reduction Type (check one box):  Past  Future (Note: For future ERC, emission reduction must be linked to proposed modification at existing major facility to be eligible for approval - Ref: 231-10.1(m))

Preparer's name: Ramon Li, P.E. Title: Technical Director, AKRF, Inc.

**FOR DEC USE ONLY**

Approved ERCs for PSD Netting

CO: \_\_\_\_\_ TPY SO<sub>2</sub>: \_\_\_\_\_ TPY Permit Number: \_\_\_\_\_  
 NO<sub>x</sub>: \_\_\_\_\_ TPY PM-2.5: \_\_\_\_\_ TPY ENB Notice Date: \_\_\_\_/\_\_\_\_/\_\_\_\_  
 PM-10: \_\_\_\_\_ TPY Permit Mod Issuance/Surrender Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Other Applicable Regulated NSR Contaminant – (See Appendix) \_\_\_\_\_: \_\_\_\_\_ TPY, \_\_\_\_\_: \_\_\_\_\_ TPY

Reviewer's Name: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

**Determination of the Baseline Period for the reduction(s)**

A.1 Emission Reduction Regulated NSR Contaminant (circle **all** that apply to a specific emission reduction action at an emission source):

NO<sub>x</sub>      PM-2.5      PM-10      CO      SO<sub>2</sub>

Other Applicable Regulated NSR Contaminant - (See Appendix): \_\_\_\_\_: \_\_\_\_\_;  
\_\_\_\_\_:

A.2 Emission Reduction Date: 07/18/2012

NOTE: The emission reduction date is the date that the emission reduction(s) physically occurred (past reduction), or the date the reduction(s) is/are scheduled to occur (future reduction).

A.3 Describe action(s) taken (or to be taken) to reduce emissions for which ERC(s) is/are requested:

The curtailment of operation of the existing boilers due to operation of the new cogeneration system.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

A.4 Baseline Period (231-4.1(b)(7)) for the emission reduction(s): 01/01/2007 to 12/31/2008

Line A.4 NOTES:

1. The same Baseline Period must be used for all applicable contaminants identified in A.1 above.
2. For an emission reduction which has physically occurred (past reduction), the Baseline Period consists of any 24 consecutive months within the five (5) years immediately preceding the emission reduction date (Line A.2 above).
3. For a future emission reduction, the Baseline Period consists of any 24 consecutive months within the five (5) years immediately preceding the date of receipt by the Department of the permit application for the project which proposes to use the emission reduction credits for netting purposes.

**Determination of Baseline Actual Emissions for the reduction(s)**

B.1 Enter the Baseline Actual Emissions (231-4.1(b)(4)) in tons per year (tpy) for each applicable Regulated NSR Contaminant (attach data summaries and calculations):

NO<sub>x</sub> 12.48 PM-2.5 \_\_\_\_\_ PM-10 1.32 CO \_\_\_\_\_ SO<sub>2</sub> \_\_\_\_\_

Other Applicable Regulated NSR Contaminant - (See Appendix): \_\_\_\_\_: \_\_\_\_\_;  
 \_\_\_\_\_: \_\_\_\_\_

B.2 State Register or Federal Register publication notice date proposing any RACT, MACT or other control requirement (OCR) that may be applicable to the emission source for which ERCs are requested:

<u>Contaminant</u>	<u>RACT Date</u>	<u>MACT Date</u>	<u>OCR Date *</u>
NO <sub>x</sub>	<u>01/01/2010</u>	<u>/ /</u>	<u>/ /</u>
PM-2.5	<u>/ /</u>	<u>/ /</u>	<u>/ /</u>
PM-10	<u>/ /</u>	<u>/ /</u>	<u>/ /</u>
CO	<u>/ /</u>	<u>/ /</u>	<u>/ /</u>
SO <sub>2</sub>	<u>/ /</u>	<u>/ /</u>	<u>/ /</u>
Other:			
_____	<u>/ /</u>	<u>/ /</u>	<u>/ /</u>
_____	<u>/ /</u>	<u>/ /</u>	<u>/ /</u>

\* - Identify OCR that applies: \_\_\_\_\_

B.3 Emission Reduction Date (from Line A.2 on page 2) 07/18/2012

B.4 What are the Baseline Actual Emissions reflecting RACT, if applicable (tpy)? (see notes)

NO<sub>x</sub> 8.83 PM-2.5 \_\_\_\_\_ PM-10 \_\_\_\_\_ CO \_\_\_\_\_ SO<sub>2</sub> \_\_\_\_\_

Other Applicable Regulated NSR Contaminant - (See Appendix): \_\_\_\_\_: \_\_\_\_\_;  
 \_\_\_\_\_: \_\_\_\_\_

B.5 What are the Baseline Actual Emissions reflecting MACT, if applicable (tpy)? (see notes)

NO<sub>x</sub> \_\_\_\_\_ PM-2.5 \_\_\_\_\_ PM-10 \_\_\_\_\_ CO \_\_\_\_\_ SO<sub>2</sub> \_\_\_\_\_

Other Applicable Regulated NSR Contaminant - (See Appendix): \_\_\_\_\_; \_\_\_\_\_;  
\_\_\_\_\_;

B.6 What are the Baseline Actual Emissions reflecting OCR, if applicable (tpy)? (see notes)

NO<sub>x</sub> \_\_\_\_\_ PM-2.5 \_\_\_\_\_ PM-10 \_\_\_\_\_ CO \_\_\_\_\_ SO<sub>2</sub> \_\_\_\_\_

Other Applicable Regulated NSR Contaminant - (See Appendix): \_\_\_\_\_; \_\_\_\_\_;  
\_\_\_\_\_;

Lines B.4, B.5 and B.6 NOTES:

1. Attach data summaries and calculations.
2. For a past emission reduction that physically occurred after a State or Federal Register publication date proposing an applicable RACT, MACT or OCR, the Baseline Actual Emissions must be adjusted to reflect the applicable RACT, MACT or OCR.
3. For a future emission reduction, if the date that the emission reduction credits are approved is after a State or Federal Register publication date proposing an applicable RACT, MACT or OCR, then the Baseline Actual Emissions must be adjusted to reflect the applicable RACT, MACT or OCR.

DEC ID#: 2-6007-00259

Emission Source ID#: U0002

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**Determination of Emission Reduction Credit(s)**

B.7 Enter the lesser of the Baseline Actual Emissions from Lines B.1, B.4, B.5 or B.6 (tpy):

NO<sub>x</sub> 8.83 PM-2.5 \_\_\_\_\_ PM-10 1.32 CO \_\_\_\_\_ SO<sub>2</sub> \_\_\_\_\_

Other Applicable Regulated NSR Contaminant - (See Appendix): \_\_\_\_\_: \_\_\_\_\_;  
\_\_\_\_\_:

B.8 Enter the future Potential-To-Emit (PTE) as defined in 6 NYCRR Part 200 (tpy):

NO<sub>x</sub> 2.00 PM-2.5 \_\_\_\_\_ PM-10 0.28 CO \_\_\_\_\_ SO<sub>2</sub> \_\_\_\_\_

Other Applicable Regulated NSR Contaminant - (See Appendix): \_\_\_\_\_: \_\_\_\_\_;  
\_\_\_\_\_:

B.9 Subtract Line B.8 from Line B.7. These are the emission reduction credits (tpy). If Line B.8 is greater than Line B.7, enter zero.

NO<sub>x</sub> 6.83 PM-2.5 \_\_\_\_\_ PM-10 1.05 CO \_\_\_\_\_ SO<sub>2</sub> \_\_\_\_\_

Other Applicable Regulated NSR Contaminant - (See Appendix): \_\_\_\_\_: \_\_\_\_\_;  
\_\_\_\_\_:

## APPENDIX

Carbon monoxide  
Nitrogen oxides  
Sulfur dioxide  
Particulate matter  
Particulate matter: PM-10 emissions (including condensibles)  
Particulate matter: PM-2.5 emissions (including condensibles)  
Lead (elemental)  
Fluorides  
Sulfuric acid mist  
Hydrogen sulfide (H<sub>2</sub>S)  
Total reduced sulfur (including H<sub>2</sub>S)  
Reduced sulfur compounds (including H<sub>2</sub>S)  
Municipal waste combustor organics (measured as total tetra through octa-chlorinated dibenzo-p-dioxin and dibenzofurans)  
Municipal waste combustor metals (measured as particulate matter)  
Municipal waste combustor acid gases (measured as sulfur dioxide and hydrogen chloride)  
Municipal solid waste landfills emissions (measured as nonmethane organic compounds)  
CFC's 11, 12, 113, 114, 115  
Halons 1211, 1301, 2402  
Any other regulated NSR contaminant

**New York State Department of Environmental Conservation**  
**Division of Air Resources**  
 Bureau of Stationary Sources, 2<sup>nd</sup> Floor  
 625 Broadway, Albany, New York 12233-3254  
 Phone: (518) 402-8403 • FAX: (518) 402-9035  
 Website: [www.dec.ny.gov](http://www.dec.ny.gov)



Alexander B. Grannis  
 Commissioner

## EMISSION REDUCTION CREDIT (ERC) QUANTIFICATION FORM

**(Use This Form For Attainment (PSD) ERC Netting Purposes Only – Ref: 231-8.2)**

**(NOTE: Emission reduction must be Contemporaneous (231-4.1(b)(12)) to be approved)**

Name of Facility Creating and Using ERC(s) for Netting: NYC-DOC-Rikers Island

Address: 17-25 Hazen Street, East Elmhurst, NY 11370

DEC ID#: 2-6007-00259 Emission Source ID#: U0003

Contact Name: Curtis Pierre Title: Senior Stationary Engineer Phone #: 718-546-1488

I Ramon Li (print name of facility's authorized representative) certify that the information contained herein is true to the best of my knowledge, information and belief.

Signature: [Signature] Title: Technical Director Date: 09/16/10

Reduction Type (check one box):  Past  Future (Note: For future ERC, emission reduction must be linked to proposed modification at existing major facility to be eligible for approval - Ref: 231-10.1(m))

Preparer's name: Ramon Li, P.E. Title: Technical Director, AKRF, Inc.

### FOR DEC USE ONLY

Approved ERCs for PSD Netting

CO: \_\_\_\_\_ TPY      SO<sub>2</sub>: \_\_\_\_\_ TPY      Permit Number: \_\_\_\_\_

NO<sub>x</sub>: \_\_\_\_\_ TPY      PM-2.5: \_\_\_\_\_ TPY      ENB Notice Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

PM-10: \_\_\_\_\_ TPY      Permit Mod Issuance/Surrender Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Other Applicable Regulated NSR Contaminant – (See Appendix) \_\_\_\_\_: \_\_\_\_\_ TPY, \_\_\_\_\_: \_\_\_\_\_ TPY

Reviewer's Name: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

DEC ID#: 2-6007-00259

Emission Source ID#: U0003

**Determination of the Baseline Period for the reduction(s)**

A.1 Emission Reduction Regulated NSR Contaminant (circle **all** that apply to a specific emission reduction action at an emission source):

NO<sub>x</sub>      PM-2.5      PM-10      CO      SO<sub>2</sub>

Other Applicable Regulated NSR Contaminant - (See Appendix): \_\_\_\_\_: \_\_\_\_\_;  
\_\_\_\_\_:

A.2 Emission Reduction Date: 07/18/2012

NOTE: The emission reduction date is the date that the emission reduction(s) physically occurred (past reduction), or the date the reduction(s) is/are scheduled to occur (future reduction).

A.3 Describe action(s) taken (or to be taken) to reduce emissions for which ERC(s) is/are requested:

The curtailment of operation of the existing boilers due to operation of the new cogeneration system.

A.4 Baseline Period (231-4.1(b)(7)) for the emission reduction(s): 01/01/2007 to 12/31/2008

Line A.4 NOTES:

1. The same Baseline Period must be used for all applicable contaminants identified in A.1 above.
2. For an emission reduction which has physically occurred (past reduction), the Baseline Period consists of any 24 consecutive months within the five (5) years immediately preceding the emission reduction date (Line A.2 above).
3. For a future emission reduction, the Baseline Period consists of any 24 consecutive months within the five (5) years immediately preceding the date of receipt by the Department of the permit application for the project which proposes to use the emission reduction credits for netting purposes.

**Determination of Baseline Actual Emissions for the reduction(s)**

B.1 Enter the Baseline Actual Emissions (231-4.1(b)(4)) in tons per year (tpy) for each applicable Regulated NSR Contaminant (attach data summaries and calculations):

NO<sub>x</sub> 6.97 PM-2.5 \_\_\_\_\_ PM-10 0.74 CO \_\_\_\_\_ SO<sub>2</sub> \_\_\_\_\_

Other Applicable Regulated NSR Contaminant - (See Appendix): \_\_\_\_\_: \_\_\_\_\_;  
 \_\_\_\_\_: \_\_\_\_\_

B.2 State Register or Federal Register publication notice date proposing any RACT, MACT or other control requirement (OCR) that may be applicable to the emission source for which ERCs are requested:

<u>Contaminant</u>	<u>RACT Date</u>	<u>MACT Date</u>	<u>OCR Date *</u>
NO <sub>x</sub>	<u>01/01/2010</u>	<u>/ /</u>	<u>/ /</u>
PM-2.5	<u>/ /</u>	<u>/ /</u>	<u>/ /</u>
PM-10	<u>/ /</u>	<u>/ /</u>	<u>/ /</u>
CO	<u>/ /</u>	<u>/ /</u>	<u>/ /</u>
SO <sub>2</sub>	<u>/ /</u>	<u>/ /</u>	<u>/ /</u>
Other:			
_____	<u>/ /</u>	<u>/ /</u>	<u>/ /</u>
_____	<u>/ /</u>	<u>/ /</u>	<u>/ /</u>

\* - Identify OCR that applies: \_\_\_\_\_

B.3 Emission Reduction Date (from Line A.2 on page 2) 07/18/2012

B.4 What are the Baseline Actual Emissions reflecting RACT, if applicable (tpy)? (see notes)

NO<sub>x</sub> 4.93 PM-2.5 \_\_\_\_\_ PM-10 \_\_\_\_\_ CO \_\_\_\_\_ SO<sub>2</sub> \_\_\_\_\_

Other Applicable Regulated NSR Contaminant - (See Appendix): \_\_\_\_\_: \_\_\_\_\_;  
 \_\_\_\_\_: \_\_\_\_\_

B.5 What are the Baseline Actual Emissions reflecting MACT, if applicable (tpy)? (see notes)

NO<sub>x</sub> \_\_\_\_\_ PM-2.5 \_\_\_\_\_ PM-10 \_\_\_\_\_ CO \_\_\_\_\_ SO<sub>2</sub> \_\_\_\_\_

Other Applicable Regulated NSR Contaminant - (See Appendix): \_\_\_\_\_: \_\_\_\_\_;  
\_\_\_\_\_:

B.6 What are the Baseline Actual Emissions reflecting OCR, if applicable (tpy)? (see notes)

NO<sub>x</sub> \_\_\_\_\_ PM-2.5 \_\_\_\_\_ PM-10 \_\_\_\_\_ CO \_\_\_\_\_ SO<sub>2</sub> \_\_\_\_\_

Other Applicable Regulated NSR Contaminant - (See Appendix): \_\_\_\_\_: \_\_\_\_\_;  
\_\_\_\_\_:

Lines B.4, B.5 and B.6 NOTES:

1. Attach data summaries and calculations.
2. For a past emission reduction that physically occurred after a State or Federal Register publication date proposing an applicable RACT, MACT or OCR, the Baseline Actual Emissions must be adjusted to reflect the applicable RACT, MACT or OCR.
3. For a future emission reduction, if the date that the emission reduction credits are approved is after a State or Federal Register publication date proposing an applicable RACT, MACT or OCR, then the Baseline Actual Emissions must be adjusted to reflect the applicable RACT, MACT or OCR.

DEC ID#: 2-6007-00259

Emission Source ID#: U0003

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**Determination of Emission Reduction Credit(s)**

B.7 Enter the lesser of the Baseline Actual Emissions from Lines B.1, B.4, B.5 or B.6 (tpy):

NO<sub>x</sub> 4.93 PM-2.5 \_\_\_\_\_ PM-10 0.74 CO \_\_\_\_\_ SO<sub>2</sub> \_\_\_\_\_

Other Applicable Regulated NSR Contaminant - (See Appendix): \_\_\_\_\_: \_\_\_\_\_;  
\_\_\_\_\_:

B.8 Enter the future Potential-To-Emit (PTE) as defined in 6 NYCRR Part 200 (tpy):

NO<sub>x</sub> 1.00 PM-2.5 \_\_\_\_\_ PM-10 0.14 CO \_\_\_\_\_ SO<sub>2</sub> \_\_\_\_\_

Other Applicable Regulated NSR Contaminant - (See Appendix): \_\_\_\_\_: \_\_\_\_\_;  
\_\_\_\_\_:

B.9 Subtract Line B.8 from Line B.7. These are the emission reduction credits (tpy). If Line B.8 is greater than Line B.7, enter zero.

NO<sub>x</sub> 3.93 PM-2.5 \_\_\_\_\_ PM-10 0.60 CO \_\_\_\_\_ SO<sub>2</sub> \_\_\_\_\_

Other Applicable Regulated NSR Contaminant - (See Appendix): \_\_\_\_\_: \_\_\_\_\_;  
\_\_\_\_\_:

## APPENDIX

Carbon monoxide

Nitrogen oxides

Sulfur dioxide

Particulate matter

Particulate matter: PM-10 emissions (including condensibles)

Particulate matter: PM-2.5 emissions (including condensibles)

Lead (elemental)

Fluorides

Sulfuric acid mist

Hydrogen sulfide (H<sub>2</sub>S)

Total reduced sulfur (including H<sub>2</sub>S)

Reduced sulfur compounds (including H<sub>2</sub>S)

Municipal waste combustor organics (measured as total tetra through octa-chlorinated dibenzo-p-dioxin and dibenzofurans)

Municipal waste combustor metals (measured as particulate matter)

Municipal waste combustor acid gases (measured as sulfur dioxide and hydrogen chloride)

Municipal solid waste landfills emissions (measured as nonmethane organic compounds)

CFC's 11, 12, 113, 114, 115

Halons 1211, 1301, 2402

Any other regulated NSR contaminant

**Attachment I**  
**Use of ERC Forms**

# USE OF EMISSION REDUCTION CREDITS (ERC) FORM

FACILITY  BROKER /  USING  PURCHASING ERC (Check Appropriate Boxes)

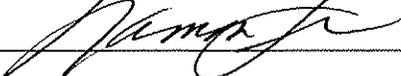
(Facility) / (Broker) Name: NYC-DOC-Rikers Island DEC ID#: 2-6007-00259

Address: 17-25 Hazen Street, East Elmhurst, NY 11370

Proposed Project Description: Installation and operation of a cogeneration plant

Contact Name: Curtis Pierre Phone #: 718-546-1488

Name of Authorized Representative: Ramon Li, P.E. Title: Technical Director, AKRF, Inc.

Signature of Authorized Representative:  Date: 09/16/10

FACILITY  BROKER /  CREATING  TRANSFERRING ERC (Check Appropriate Boxes)

(Facility) / (Broker) Name: NYC-DOC-Rikers Island DEC ID#: 2-6007-00259

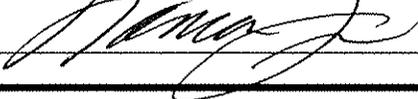
Address: 17-25 Hazen Street, East Elmhurst, NY 11370

ERC Emission Source ID#(s) / ERC tpy: \_\_\_\_\_ / \_\_\_\_\_; \_\_\_\_\_ / \_\_\_\_\_;  
\_\_\_\_\_ / \_\_\_\_\_; \_\_\_\_\_ / \_\_\_\_\_; OR

ERC Emission Unit ID#(s) / ERC tpy: U00001 / 6.81; U00002 / 6.83;  
U00003 / 3.93; \_\_\_\_\_ / \_\_\_\_\_;

Reduction Mechanism: Curtailment

Name of Authorized Representative: Ramon Li, P.E. Title: Technical Director, AKRF, Inc.

Signature of Authorized Representative:  Date: 09/16/10

AMOUNT OF EMISSION REDUCTION CREDIT BEING				<input checked="" type="checkbox"/> USED / <input type="checkbox"/> TRANSFERRED	
(complete all that apply)					
offsets _____ tpy	NO <sub>x</sub>	netting <u>17.57</u> tpy	offsets _____ tpy	PM-10	netting _____ tpy
offsets _____ tpy	VOC	netting _____ tpy	offsets _____ tpy	PM-2.5	netting _____ tpy

**\*NOTE:** Any previous Use of ERC Forms associated with the ERCs being used or transferred with this transaction must be attached.

# USE OF EMISSION REDUCTION CREDITS (ERC) FORM

FACILITY  BROKER /  USING  PURCHASING ERC (Check Appropriate Boxes)

(Facility) / (Broker) Name: NYC-DOC-Rikers Island DEC ID#: 2-6007-00259

Address: 17-25 Hazen Street, East Elmhurst, NY 11370

Proposed Project Description: Installation and operation of a cogeneration plant

Contact Name: Curtis Pierre Phone #: 718-546-1488

Name of Authorized Representative: Ramon Li, P.E. Title: Technical Director, AKRF, Inc.

Signature of Authorized Representative: \_\_\_\_\_ Date:  / /

FACILITY  BROKER /  CREATING  TRANSFERRING ERC (Check Appropriate Boxes)

(Facility) / (Broker) Name: NYC-DOC-Rikers Island DEC ID#: 2-6007-00259

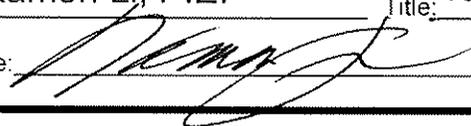
Address: 17-25 Hazen Street, East Elmhurst, NY 11370

ERC Emission Source ID#(s) / ERC tpy: \_\_\_\_\_ / \_\_\_\_\_; \_\_\_\_\_ / \_\_\_\_\_;  
\_\_\_\_\_ / \_\_\_\_\_; \_\_\_\_\_ / \_\_\_\_\_; OR

ERC Emission Unit ID#(s) / ERC tpy: U00001 / 1.14; U00002 / 1.05;  
U00003 / 0.60; \_\_\_\_\_ / \_\_\_\_\_;

Reduction Mechanism: Curtailment

Name of Authorized Representative: Ramon Li, P.E. Title: Technical Director, AKRF, Inc.

Signature of Authorized Representative:  Date: 09/16/10

AMOUNT OF EMISSION REDUCTION CREDIT BEING				<input checked="" type="checkbox"/> USED / <input type="checkbox"/> TRANSFERRED	
(complete all that apply)					
offsets _____ tpy	NO <sub>x</sub>	netting _____ tpy	offsets _____ tpy	PM-10	netting <u>2.79</u> tpy
offsets _____ tpy	VOC	netting _____ tpy	offsets _____ tpy	PM-2.5	netting _____ tpy

**\*NOTE:** Any previous Use of ERC Forms associated with the ERCs being used or transferred with this transaction must be attached.