

371 Hoes Lane, Suite 200, Piscataway, NJ 08854 Phone: 732-377-2040; Fax: 732-377-2044

May 23, 2022

Ms. Denise Grattan, Env. Analyst 2 NYSDEC Region 2 Division of Environmental Permits 47-40 21<sup>st</sup> Street, 1 Hunters Point Plaza Long Island City, New York, NY 11101-5401

Subje	ct:	Queens Fresh Meadows Facility
		Application for an Air State Facility Permit
Re:	[1]	Title V Air Permit ID#: 2-6306-00071/00003
		Effective Date: 8/29/2017; Expiration Date: 8/28/2022
	[2]	Notice of Incomplete Application [for Title V permit renewal] – 5/2/2022
		Batch # 746262
	[3]	D. Grattan e-mail to R. Rao dated 5/6/2022
	[4]	C. Johnson e-mail to D. Grattan dated 5/10/2022

Dear Ms. Grattan:

The Queens Fresh Meadows Facility [QFM] previously submitted a renewal application for its current ATV permit [reference 1] and received a NOI [reference 2] primarily because the submitted application did not include a NYS Professional Engineer Certification and CO2e emission rate. The facility has solicited Terranext's services in this matter [reference 4].

The facility has recently reviewed its annual fuel consumption for the eleven-year period from 2011 through 2021 and has concluded it qualifies to opt out of its ATV permit [reference 1], and instead operate under an Air State Facility [ASF] permit.

This letter, with associated attachments, presents the "Air State Facility [ASF] application for the subject facility. Attachment 1 is the application, certified by the responsible official and a NYS licensed professional engineer. Attachment 2 includes Tables 1, 2, 3, 4A, 4B, 5, 6A, 6B, 7, and 8, which present the heat input rating of the boilers, historical annual fuel consumption rates of the facility, and calculated PTE and actual emissions rates for various air contaminants. Attachment 3 presents a list of exempt activities. Attachment 4 presents "Methods Used to Determine Compliance".

In the ASF application, the emission unit definition of emission sources, emission points, processes, and building designations remain the same as the current ATV. The facility under an ASF permit will continue the firing of natural gas as the primary fuel with distillate #2 oil as the secondary fuel.

Table 1 presents the facility's combustion equipment ratings, annual fuel consumptions, and annual capacity factors. Tables 2 and 3 present, respectively, a summary of the annual PTE and actual emission rates of the criteria pollutants in tons. Table 4A presents the individual hazardous air pollutants PTE and actual emission rates firing natural gas fuel. The actual emission rates in Table 4A are based upon the maximum annual natural gas consumption rate for the period of years 2011 through 2021 [year 2019]. Table 4B presents the individual hazardous air pollutants PTE and actual emission rates firing distillate #2 oil fuel. The actual emission rates in Table 4B are based upon the maximum annual #2-oil consumption rate for the period of years 2011 through 2021 [year 2014]. Table 5 presents the calculated persistent, bio-accumulative or toxic compounds emission rates. Emission rates in Tables 4A, 4B and 5 are based upon US EPA AP-42 emission factors and the boiler rating. Table 6A presents the actual CO2equivalent emission rate. This actual rate is based on the average annual fuel consumption rates of natural gas and #2-oil for the period from 2011 through 2021. Table 6B presents the PTE CO2equivlent emission rate. This PTE rate is based on the PTE natural gas hourly rate shown in Table 1 for 8760 hours per year. Table 7 presents the annual fuel consumption rates and calculated annual NOx emission rates. The facility records its natural gas fuel consumption in "therms" units and #2-oil in gallons. Table 7 converts the "therms" units to million SCF gas. EPA emission factors are used to calculate associated NOx emissions. Table 8 also presents the annual fuel consumption for the eleven-year period including a graphical presentation. While gas consumption appears steady, #2-oil spiked in 2014 and 2015. More recently, #2 oil annual consumption has returned to a more consistent trend.

As shown in Table 2, the facility PTE for NOx emissions is 68.9 tons firing natural gas or 100.36 tons firing #2 oil designating the facility a "major source". However, as shown in Table 3, the maximum actual NOx annual emission rate during the eleven-year period is 17.25 tons. This rate is based on the maximum natural gas firing rate that occurred in 2019 and the maximum oil firing rate that occurred in 2014. This calculated NOx annual rate is 1.55 tons greater than the maximum actual annual rate shown in Table 7, 15.7 tons NOx. Based upon the review and analysis of the facility's fuel consumption record, it qualifies for opting out of the ATV and operating under an ASF permit for the future.

The certified application included as Attachment 1, includes continuation pages 2A, 4A, 5A-1, 5A-2, and 8A. Page 7 of the application is blank as this information is presented in more detail by Tables 4A and 4B. The ERP rate is equivalent to the PTE rate since there is no post combustion emission control technology associated with the boilers.

Attachment 3 presents the list of exempt activities of the facility. Attachment 4 presents the methods used to determine compliance.

After your review of the application, please advise if the application is deemed complete and acceptable for issuing an ASF permit as a replacement for renewing the ATV permit.

If you have any questions, please feel free to contact me at (732) 377-2040 or by e-mail at rrao@terranext.net.

Very truly yours, **Terranext, LLC** 

Bichad Boo

Richard Rao Regional Director – NE Operations

Attachments:

- 1 Air State Facility Application Queens Fresh Meadows
- 2 Associated Tables:
  - Table 1 Queens Fresh Meadows Equipment Ratings / Fuel Consumption,
  - Table 2 Queens Fresh Meadows., Facility-Wide PTE Rates
  - Table 3 Queens Fresh Meadows, Actual Emissions –2011 / 2021
  - Table 4A QFM PTE and Max Actual Emission Estimates Gas Firing
  - Table 4B QFM PTE and Max Actual Emission Estimates Oil Firing
  - Table 5 PBT Compound Emission Rates Gas Firing at Actual Level
  - Table 6A GHG Emissions Actual 2011/2021 Average [Gas & Oil Firing]
  - Table 6B GHG Emissions PTE Gas Firing
  - Table 7 Annual Fuel Consumption Gas & #2 Oil, 2011 2021
  - Table 8- Annual Fuel Consumption Gas & Oil, 2011-2021 with trend
- 3 List of Exempt Sources
- 4 Methods Used to Determine Compliance

cc:

Mr. Christopher Johnson, Chief Engineer, Queens Fresh Meadows. w/Attachments Mr. Reda Salib, NYS Professional Engineer Attachment 1

Queens Fresh Meadows Facility ID# 2-6306-00071/00003

Air State Facility Permit Application

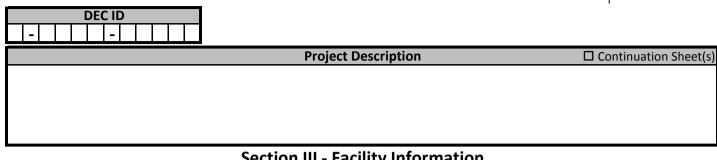
NEW YORK STATE OF OPPORTUNITY	DE
Y	Ē

Department of Environmental Conservation

Section I - Certification         Certification         Lectify 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 to complete this application, 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       Title         Signature       Date         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. I am aware that there are significant penalties for submitting false information, including the possibilit of fines and imprisonment for knowing violations.         Professional Engineer       NYS License No.         Signature       Date         Date         Section II - Identification Information         MYS License No.       Date         Section II - Identification Information         MYS License No.         Significant Modification         Application for the construction of a new facility         Applicatio	DEC ID	Applicat	ion ID		Application Type
Certification         tertify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assume that qualified personare prepared gather and evaluate the information in true, accurate, and complete. I am aware that there are significant parallels for submitting false information, including the possibility of fines and imprisonment for knowing violations.         Responsible Official       Title         Signature       Date         Professional Engineer Certification       Title         signature       Date         Professional Engineer Certification       Title         signature       Date         Professional Engineer Certification       Title         signature       Date         Professional Engineer       NYS License No.         Signature       Date         Section II - Identification Information       Date         Signature       Date         Signature       Date         Signature       Date         Signature       Significant Modification         Application for the construction of a new facility       Application involves the construction of new emission unit(s)         Facility Information       Business Taxpayer IC         Name       State/Province       Country       Zip         Street		-         -			<sup>X</sup> □ State Facility □ Title V
Lectify 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 personen property gather and evaluate the information submitted. Eaced on my inquiry of the person or process directly responsible for gathering the information required to complex this application. I believe the information is used curved. A securical and complex is an application. It is the information is used curved and improvement for knowing violations.  Responsible Official Title Signature Drofessional Engineer Certification Lectify under penalty of law that it have personally examined, and am familier with, the statements and information submitted in this document and all its attachments were prefared under penalty of law that in these personally examined, and am familier with, the statements and information submitted in this document and all its attachments were prefared under the early of law that in these personally examined, and am familier with, the statements and information submitted in this document and all its attachments were prefared under the early of law that in these personally examined, and am familier with, the statements and information submitted in this document and all its attachments were prefared under the early of law that in these personally examined, and am familier with, the statements of submitting fake information, including the possibility of fines and information submitted. These personally examined, and an familier with, the statements and information submitted in this document and all its attachments were prefared under these are significant states and under the early of law that have personally examined, and an familier with, the statements of submitting fake information, including the possibility of fines and family matches between the early of law that these personally examined. If the early of the construction of a new facility of permit Action Reguested  Certify under penalty of law that that t					
asure that qualified personnel property gather and evaluate the information submitted. Based on my inquiry of the person or process directly responsible for gathering the information required to complet the samplation. Individe the information the accurate, and domplete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.  Responsible Official Title Signature Date  Professional Engineer Certification  Information submitted in this document and all its trachments and information submitted in this document and all its trachments and imprisonment for knowing violations.  Professional Engineer Section II - Identification Information  And imprisonment for knowing violations.  Professional Engineer Section II - Identification Information  And imprisonment for knowing violations.  Professional Engineer Section II - Identification Information  And imprisonment for knowing violations.  Professional Engineer Section II - Identification Information  And imprisonment for knowing violations.  Professional Engineer Section II - Identification Information  And imprison Modification  Application for the construction of a new facility Application involves the construction of me emission unit(s)  Aname Street Address City   Town / Uvilage  City   State/Province Country Zip  Owner/Firm Information  Name  Phone E-mail Address Fax Affiliation Title  Phone E-mail Address Fax Affiliation Title  Phone E-mail Address Fax Affiliation Title  Phone Facility Contact Information Fax Affiliation Facility Contact Information Facility Contac		Certificati	on		
Signature Date  Professional Engineer Certification  tertify 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 perfain to the practice of engineering. I am aware that there are significant penalties for submitting fake information, including the possibili of fires and imposed to knowing Volations.  Professional Engineer  NYS License No.  Signature  Section II - Identification Information  Type of Permit Action Requested  Application for the construction of a new facility  Application involves the construction of new emission unit(s)  Facility Information  Application for the construction of a new facility  Application involves the construction of new emission unit(s)  City  Owner/Firm Information  Name  Street Address City  State/Province Country Zip  Affiliation  Name  Facility Contact Information  Name  Phone  Facility Contact Informati	assure that qualified personnel properly gather and eva gathering the information required to complete this ap	aluate the information submitted plication, I believe the information	d. Based on my inquiry of the on is true, accurate, and com	e person or p iplete. I am a	ersons directly responsible for
Professional Engineer 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 the pertain to the poratice of engineering. I am aware that there are significant penalties for submitting false information, including the possibilit of fines and imprisonment for knowing violations.           Professional Engineer         NYS License No.           Signature         Date           Date           Section II - Identification Information           Type of Permit Action Requested         Minor Modification           Application for the construction of a new facility         Application involves the construction of new emission unit(s)           Name           Country Country City           Owner/Firm Information           Name           Street Address           Country City           Country City           Owner/Firm Information           Name           Street Address           Country City           Country City           Country City           Street Address           Country City           Country City </td <td>Responsible Official</td> <td></td> <td></td> <td>Title</td> <td></td>	Responsible Official			Title	
Icertify under penalty of law that have personally examined, and am familiar with, the statements and information studing false information, including the possibility of fires and inprisonment for knowing violations. Professional Engineer	Signature			Date	
attachments as they pertain to the practice of engineering. I am aware that there are significant penalties for submitting false information, including the possibilit of fines and imprisonment for knowing violations. Professional Engineer		Professional Enginee	r Certification		
Signature Date Section II - Identification Information  Name Location Address City   Town / Village  City / Town / Village  City State/Province Country Zip  Owner/Firm Contact Information Name F-mail Address City State/Province Country Zip  Facility Contact Information Name F-mail Address City State/Province Country Zip  Facility Contact Information Name F-mail Address City State/Province Country Zip  Facility Contact Information Name F-mail Address City State/Province Country Zip  Facility Contact Information Name F-mail Address City State/Province Country Zip  Facility Contact Information Name F-mail Address City State/Province Country Zip  Facility Contact Information Name F-mail Address City State/Province Country Zip  Facility Contact Information Name F-mail Address City Title Street Address City Title Street Address City Title Street Address City Title Street Address City State/Province Country Zip	attachments as they pertain to the practice of engineer				
Section II - Identification Information         Type of Permit Action Requested	Professional Engineer			NYS Licen	se No.
Type of Permit Action Requested           New         Renewal         Significant Modification         Administrative Amendment         Minor Modification           Application for the construction of a new facility         Application involves the construction of new emission unit(s)           Facility Information         Facility Information         Image: Significant Modification           Name         Zip         Zip           Cocation Address         Zip         Image: Signification           Owner/Firm Information         Business Taxpayer IC           Name         Image: Signification:         Zip           Owner/Firm Information         Business Taxpayer IC           Name         Image: Signification:         Zip           Owner/Firm Information         Business Taxpayer IC           Name         Image: Signification:         State/Province           Country         Zip         Zip           Owner/Firm Contact Information         Image: Signification:         Phone           E-mail Address         Fax         Fax           Affiliation         Title         State/Province         Country         Zip           Facility Contact Information         Title         State/Province         Fax           Affiliation         Title <t< td=""><td>Signature</td><td></td><td></td><td>Date</td><td></td></t<>	Signature			Date	
Image: Significant Modification       Administrative Amendment       Image: Minor Modification         Application for the construction of a new facility       Application involves the construction of new emission unit(s)         Facility Information         Name	Sec	tion II - Identificat	ion Information		
□ Application for the construction of a new facility □ Application involves the construction of new emission unit(s)   Facility Information   Name 2ip   □ City / □ Town / □ Village 2ip   Owner/Firm Information Business Taxpayer ID   Name □ □ □ □ □ □ □ □ □   Street Address □ □ □ □ □ □ □ □ □   City State/Province Country   Qwner Classification: □ Federal □ State   Owner/Firm Contact Information Phone   Name Phone   E-mail Address Fax   City State/Province   Country Zip					Ainen Madifientian
Facility Information         Name         Location Address         City / Town / Dillage         Zip         Owner/Firm Information         Name         Street Address         City       State/Province         Country       Zip         Owner Classification:       Federal         State       Municipal         Commer/Firm Contact Information       Individual         Owner/Firm Contact Information       Phone         E-mail Address       Fax         Affiliation       Title         Street Address       Country       Zip         Owner /Firm Contact Information         Name       Phone       Fax         Affiliation       Title       Street Address         City       State/Province       Country       Zip         Mame       Phone       Fax       Facility Contact Information         Name       Facility Contact Information       Facility Contact Information         Name       Phone       Facility Contact Information       Facility Contact Information         Name       Phone       Facility Contact Information       Facility Contact Information         Name <t< td=""><td></td><td></td><td></td><td></td><td></td></t<>					
Location Address    Location Address					
City /	Name				
Owner/Firm Information       Business Taxpayer II         Name       Image: Image	Location Address				
Name         Street Address         City       State/Province       Country       Zip         Owner Classification:       Federal       State       Municipal       Corporation/Partnership       Individual         Owner/Firm Contact Information       Phone       E-mail Address       Fax         Affiliation       Title       Street Address       Country       Zip         Facility Contact Information       Title       Street Address       Fax         Affiliation       Title       State/Province       Country       Zip         Facility Contact Information       Title       Street Address       Fax         Affiliation       Title       State/Province       Country       Zip         Street Address       Fax       Fax       State/Province	□ City / □ Town / □ Village				Zip
Street Address City State/Province Country Zip Owner Classification: Federal State Municipal Corporation/Partnership Individual Owner/Firm Contact Information Name E-mail Address Affiliation Title Street Address City State/Province Country Zip Facility Contact Information Name E-mail Address Fax Affiliation State/Province Country Zip Facility Contact Information Name E-mail Address Fax Affiliation Title Street Address Fax	Owne	er/Firm Information			Business Taxpayer ID
City State/Province Country Zip   Owner Classification: Federal State Municipal Corporation/Partnership Individual   Owner/Firm Contact Information Phone   Name Phone   E-mail Address Fax   Affiliation Title   Street Address Country   City State/Province   Country Zip	Name				
Owner Classification: Federal State Municipal Corporation/Partnership Individual   Owner/Firm Contact Information   Name Phone   E-mail Address Fax   Affiliation Title   Street Address   City State/Province   Country Zip   Facility Contact Information   Name   E-mail Address   City State/Province   Country Zip   Facility Contact Information   Name   E-mail Address   Affiliation   Title   State/Address   Fax	Street Address				
Owner/Firm Contact Information         Name       Phone         E-mail Address       Fax         Affiliation       Title         Street Address       Title         City       State/Province       Country         Phone         Facility Contact Information         Name       Phone         E-mail Address       Fax         Affiliation       Title         Street Address       Fax         Street Address       Fax	City	State/Province	Country		Zip
Name     Phone       E-mail Address     Fax       Affiliation     Title       Street Address     Title       City     State/Province     Country       Zip       Facility Contact Information       Name     Phone       E-mail Address     Fax       Affiliation     Title	Owner Classification: 🛛 Federal 🔤 S	tate 🛛 Municipal	Corporation/Par	tnership	Individual
E-mail Address          Affiliation       Title         Street Address       Title         City       State/Province       Country       Zip         Facility Contact Information         Name       Phone         E-mail Address       Fax         Affiliation       Title         Street Address       Fax		Owner/Firm Contact	Information		
Affiliation Title Street Address City State/Province Country Zip Facility Contact Information Name E-mail Address Fax Affiliation Title Street Address	Name			Pho	one
Street Address City State/Province Country Zip Facility Contact Information Name E-mail Address Affiliation Title Street Address	E-mail Address			Fax	
City     State/Province     Country     Zip       Facility Contact Information       Name     Phone       E-mail Address     Fax       Affiliation     Title       Street Address     Intervention	Affiliation		Tit	le	
Facility Contact Information         Name       Phone         E-mail Address       Fax         Affiliation       Title         Street Address       Fax	Street Address				
Name     Phone       E-mail Address     Fax       Affiliation     Title       Street Address     Fax	City	State/Province	Country		Zip
E-mail Address Fax Affiliation Title Street Address		Facility Contact In	formation		
Affiliation Title Street Address	Name			Pho	one
Street Address	E-mail Address			Fax	
	Affiliation		Tit	le	
City State/Province Country Zip	Street Address				
Version 4 - 1/11/2021		State/Province	Country		Zip

New York State Department of Air Permit Application	Environmental Conservatio	n	NEW YORK STATE OF OPPORTUNITY	Department of Environmental Conservation
DEC ID	Application ID	0 0 0 3	Second se	Facility Title V
2 - 6 3 0 6 - 0 0 0 7 1 2	- 6 3 0 6 - 0 0 0 7 1 / 0 Section I - Certification			,
	Certification			
I certify under penalty of law that this document and all	attachments were prepared under my direction of	or supervision in acc	ordance with	a system designed to
assure that qualified personnel properly gather and eval gathering the information required to complete this app penalties for submitting false information, including the	uate the information submitted. Based on my inq lication, I believe the information is true, accurate	uiry of the person of e, and complete. I a	m aware that	there are significant
Responsible Official Christopher Johnso	n V N	Title	Chief Eng	gineer
Signature mist	onhe bel	Date	5/2	3/2022
	Professional Engineer Certification	n		
I certify under penalty of law that I have personally exar attachments as they pertain to the practice of engineer of firms and imprisonment for knowing volations.	nined, and am familiar with, the statements and I ng. I am aware that there are significant penaltie	nformation submitt s for submitting fai	ed in this doc se information	ument and all its n, including the possibility
Professional Engineer Reda Salib		NYS Lie	cense No.	056189
Ross Ross Ross	lish	Date	5/19	1/2022
Signator po	ion II - Identification Inform	nation		
	ype of Permit Action Requested			
	cant Modification Administrative A a new facility Application Involves		Minor Mo	
Application for the construction of a	Facility Information		on of new e	
Name Queens Fresh Meadows Facilit				
	y			
Location Address 67-10 192nd Street × City / Town / Village Fresh Mean	lows		Zip	11365
	r/Firm Information		i	iness Taxpayer ID
Name Queens Fresh Meadows LLC			1 3	4 1 8 2 2 7 3
Street Address 188-02 64th Avenue				
City Fresh Meadows	State/Province NY	Country USA		zip 11365
		ation/Partnersh		Individual
Owner classification. Tederal St	Owner/Firm Contact Information			
Name Christopher Johnson			Phone 71	8-454-6700 x 5544
E-mail Address ChristopherJ@cammel	ovs.com	Ì		454-0234
Affiliation Fresh Meadows Developme		Title C	hief Engin	eer
Street Address 67-10 192nd Street	-			
City Fresh Meadows	State/Province NY	Country USA	<b>\</b>	zip 11365
	Facility Contact Information			
Name Christopher Johnson			Phone 71	8-454-6700 x 5544
E-mail Address ChristopherJ@cammet	bys.com		Fax 718-	454-0234
Affiliation Fresh Meadows Developm		Title C	hief Engin	eer
Street Address 67-10 192nd Street	tennen håldet sog kallen er en			
City Fresh Meadows	State/Province NY	Country USA	4	Zip 11365
Version 4 - 1/11/2021				





					n - racinty m				
					acility Classificat				
	🗆 Hospita	al □ R	esidentia	al 🛛 Educatio	nal/Institutional	Commerci	al 🛛 🗆 Industria	ι Οι	Jtility
					tes (Title V Appl				
	🗆 Verm		Massach		e Island 🛛 Penn		l Land:		
		ew Hamps	shire D	Connecticut	New Jersey	Ohio Tribal La	and:		
		SIC Cod	de(s)			NA	ICS Code(s)		
				F	acility Description	on	[	Contin	uation Sheet(s)
				•	ements (Title V /				
-					is in compliance v		-		
					mpliance with all	•••		-	•
	-			-	nplying units must		-		
	-		-	-	on required. For al	l emission units	at the facility that	t are opei	rating <u>in</u>
				ments, complete					
	-		-		ned in such a man			he durati	ion of the
-	-				ompliance plan po	-			
					ements that will b	ecome effective	e during the term	of the pe	rmit, this
facility w	vill meet suc	h require	ments or	a timely basis.					
🗆 Comp	liance certif	ication re	ports wil	l be submitted at	least once per yea	ar. Each report v	vill certify complia	ince stati	us with respect
to each a	applicable re	equireme	nt, and tl	ne method used t	o determine the st	atus.			
				Facility App	licable Federal R	Requirements	[	Contin	uation Sheet(s)
Title	Туре	Part	Sub	part Sectio	n Subdivision	Paragraph	Subparagraph	Clause	Subclause
				Facility	State Only Requ	irements	[	Contin	uation Sheet(s)
Title	Туре	Part	Sub	part Sectio	n Subdivision	Paragraph	Subparagraph	Clause	Subclause
								1	



Department of Environmental Conservation

	DEC ID												
-					I								

## **Section III - Facility Information**

Facility Applicable Federal Requirements (continuation)													
Title	Туре	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause				



	DEC I	D											
					Facility	v Co	mpliance Cert	ificati	ion		Γ	] Continu	ation Sheet(s)
							Rule Citation						
Title	Туре	Part	Sub	part	Secti	ion	Subdivision	Para	agraph	Subparagr	aph	Clause	Subclause
□ Applicab	le Federa	al Require	ement		ning	C	AS Number			Contami	nant N	Name	
□ State On	ıly Requir	rement		🗆 Cap	ping								
							oring Informa						-
니 Work	Practice	Involving	Specific				bient Air Monit •• Activity Des			cord Keepinរួ	g/Mair	ntenance	Procedures
Work PracticeProcess MaterialType CodeCodeDescription										Referer	nce Te	st Metho	k
Type Co	de	Code			Desci	riptic	n						
Monitored Parameter													
Code			Womene		cription	<u>ו</u>			Μ	anufacturer'	s Nam	e/Model	Number
		mit				-			Limit Ur				
Upp	er	L	ower	(	Code				[	Description			
	Avoragi	ing Metho	ad				nitoring Froque	201		Bor	orting	- Poquiro	monte
Code	Averagi	Descrip			Code		Monitoring Frequency Description Cod				JOI LIIIE	g Requirer Descri	
													-
					Faci	lity I	Emissions Sum	nmary	1		Γ	Continu	ation Sheet(s)
CAS Nu	mhor			Cor	ntamina					Potential to			al Emissions
				COI			anic			(tons/y	r)	(p	ounds/yr)
0NY075 ·					PM-								
0NY750 ·					PM-2								
007446 -					Sulfur D								
0NY210 ·					ides of		-						
000630 -					rbon M								
007439 -				Le	ead (ele	ment	tal)						
0NY998 ·	- 00 - 0		Тс	otal Volat	tile Orga	anic (	Compounds						
0NY100 ·	- 00 - 0			Total Haz	zardous	s Air I	Pollutants						
0NY750 ·	- 00 - 0			Carbon	Dioxide	e Equ	uivalents						

# New York State Department of Environmental Conservation

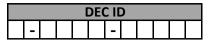
# **Air Permit Application**



DEC ID				I
	Section	IV - Emission Unit	Information	
		Emission Unit Descript		□ Continuation Sheet(s)
Emission Unit				
Building ID	Build	Building Informatio	n Length (ft)	Continuation Sheet(s) Width (ft) Orientation
Dulluling ID	Dulla		Length (it)	Width (it) Otientation
Emission Unit	E	mission Unit Emissions	Summary	□ Continuation Sheet(s)
		Cantani		
CAS Number		Contami	inant Name	
	Potenti	al to Emit	Actua	l Emissions
ERP (lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
CAS Number		Contami	inant Name	
			-	
ERP (lbs/yr)	Potentia (lbs/hr)	al to Emit (lbs/yr)	Actua (lbs/hr)	l Emissions (Ibs/yr)
		(103/ 91)	(103/117)	(103/ ¥1)
CAS Number		Contami	inant Name	
ERP (lbs/yr)		al to Emit		l Emissions
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
CAS Number		Contami	inant Name	
	Dotooti	al to Emit	Actus	Emissions
ERP (lbs/yr)	Potenti (lbs/hr)	al to Emit (lbs/yr)	Actua (lbs/hr)	l Emissions (Ibs/yr)



Department of Environmental Conservation



## **Section III - Facility Information**

	Facility Emissions Summary (continuat	ion)		
CASNO	Contaminant Name	Potential to	o Emit	Actual Emissions
CAS No.	Contaminant Name	(lbs/yr)	Range	(lbs/yr)

Continuation Sheet \_\_\_\_\_4A of \_\_\_\_\_



[	DEC ID												
-	-												
				Emission Point Information						Continuation Sheet(s)			
Emission Poir	nt												
Ground	Hoig	ht (ft)	Height Ab	ove	Inside D	iameter	E it	Tamara ( <sup>0</sup> 1	-\	(	Cross S	ection	
Elevation (ft)	) <sup>neig</sup>	nt (It)	Structure	(ft)	(i	n)	Exit	Temp. (°F	-)	Length (in)		Width (in)	
Exit Velocity (FPS)		Flow CFM)	' NYTM (E) (KM)		NYTM (	N) (KM)	E	Building		Distance to Prop Line (ft)	erty	Date of Removal	
Emission Poir	nt												
Ground			Height Ab		Inside D	iameter				(	Cross S	ection	
	Elevation (ft) Height (ft) Structure (f				n)	Exit	Temp. ( <sup>°</sup> f	F)	Length (in)	1033 5	Width (in)		
			onderaie	(10)	(	,				2011801 (111)		Widen (my	
Exit Velocity (FPS)			(KM)	NYTM (	N) (KM)	E	Building		Distance to Prop Line (ft)	erty	Date of Removal		
Emission Poir	<b>x</b> +												
Ground			Hoight Ab	01/0	Incido D	iameter			_		Cross S	oction	
	Ground Elevation (ft) Height (ft) Height Above Structure (ft)				n)	Exit	Temp. (°f	F)	Length (in)		Width (in)		
			(11)	(1)	,				Length (III)		widen (iii)		
Exit Velocity (FPS)		Flow CFM)	NYTM (E)	(KM)	NYTM (	N) (KM)	E	Building		Distance to Prop Line (ft)	erty	Date of Removal	
				En	nission S	ource/C	ontro	l Inform	nati	on		Continuation Sheet(s)	
Emission So	ource	[	Date of	Da	ate of	Date	of	(	Con	ntrol Type		Manufacturer's	
ID	Туре	Cor	struction	Operation		Removal		Code		Description	Name/Model Numbe		
Design			Design Ca	apacit	y Units				Wa	aste Feed		Waste Type	
Capacity	Code			Descr	iption			Code		Description	Code	e Description	
Emission So	ource	[	Date of	Da	ate of	Date	of		Con	ntrol Type		Manufacturer's	
ID	Туре	Cor	struction	Ор	eration	Remo	val	Code		Description	Na	me/Model Number	
Design		<u> </u>	Design Ca	apacit	v Units				Wa	aste Feed		Waste Type	
Capacity	Code			-	iption			Code		Description	Code		
Emission So	ource	ſ	Date of	Da	ate of	Date	of		L Con	ntrol Type		Manufacturer's	
ID	Туре	4	struction		eration	Remo		Code		Description	Na	me/Model Number	
Design		1	Design Ca	apacit	v Units				Wa	aste Feed		Waste Type	
Capacity	Code			-	iption			Code		Description	Code		



	DEC ID												
-					I								

## **Section IV - Emission Unit Information**

Emission Point Information (continuation)												
Emission Unit				(	Emission Po	pint						
Ground	Height	Height Above	Inside Diameter	Exit Temp.	Cross	Section						
Elevation (ft)	(ft)	Structure (ft)	(in)	(°F)	Length (in)	Width (in)						
Exit Velocity	Exit Flow	NYTM (E)	NYTM (N)	Building	Distance to	Date of Removal						
(FPS)	(ACFM)	(km)	(km)	Dunung	Property Line (ft)	Date of Kenioval						
Emission Unit					Emission Po	pint						
Ground	Height	Height Above	Inside Diameter	Exit Temp.		Section						
Elevation (ft)	(ft)	Structure (ft)	(in)	(°F)	Length (in)	Width (in)						
5												
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal						
(173)			(KIII)									
Emission Unit					Emission Po	pint						
Ground	Height	Height Above	Inside Diameter	Exit Temp.		Section						
Elevation (ft)	(ft)	Structure (ft)	(in)	(°F)	Length (in)	Width (in)						
Exit Velocity	Exit Flow	NYTM (E)	NYTM (N)	Building	Distance to	Date of Removal						
(FPS)	(ACFM)	(km)	(km)	24.14.18	Property Line (ft)							
Emission Unit					Emission Po							
Ground Elevation (ft)	Height (ft)	Height Above	Inside Diameter	Exit Temp.		Section						
Elevation (It)	(11)	Structure (ft)	(in)	(°F)	Length (in)	Width (in)						
Exit Velocity	Exit Flow	NYTM (E)	NYTM (N)		Distance to							
(FPS)	(ACFM)	(km)	(km)	Building	Property Line (ft)	Date of Removal						
	/											
Emission Unit					Emission Po	pint						
Ground	Height	Height Above	Inside Diameter	Exit Temp.	Cross	Section						
Elevation (ft)	(ft)	Structure (ft)	(in)	(°F)	Length (in)	Width (in)						
Exit Velocity	Exit Flow	NYTM (E)	NYTM (N)	Building	Distance to	Date of Removal						
(FPS)	(ACFM)	(km)	(km)		Property Line (ft)							



Department of Environmental Conservation

	DEC ID													
,	-				1									

## **Section IV - Emission Unit Information**

	Emission Source/Control (continuation)										
Emissior	n Unit	-									
Emission	n Source		Date o	of	Date of	Date of		Control Type	N	1anufacturer's	
ID	Туре	Co	onstruc	tion	Operation	Removal	Code	Description	Na	me/Model No.	
Design			Desi	gn Ca	pacity Units			Waste Feed	Waste Type		
Capacity	Code				Description		Code	Description	Code	Description	
Emissio	n Source		Date o	of	Date of	Date of		Control Type	N	lanufacturer's	
ID	Туре	Co	onstruc	tion	Operation	Removal	Code	Description	Na	me/Model No.	
Design			Desi	gn Ca	pacity Units			Waste Feed		Waste Type	
Capacity	Code				Description		Code	Description	Code	Description	
Emissio	n Source		Date o	of	Date of	Date of		Control Type	N	lanufacturer's	
ID	Туре	Co	nstruc	tion	Operation	Removal	Code	Description	Na	me/Model No.	
Design			Desi	gn Ca	pacity Units			Waste Feed		Waste Type	
Capacity	Code				Description		Code	Description	Code	Description	
Emissio	n Source		Date o	of	Date of	Date of		Control Type	N	lanufacturer's	
ID	Туре	Co	nstruc	tion	Operation	Removal	Code	Description	Na	me/Model No.	
Design			Desi	gn Ca	pacity Units			Waste Feed		Waste Type	
Capacity	Code				Description		Code	Description	Code	Description	
Emissio	n Source		Date o	of	Date of	Date of		Control Type	N	lanufacturer's	
ID	Туре	Co	nstruc	tion	Operation	Removal	Code	Description	Na	me/Model No.	
Design			Desi	gn Ca	pacity Units			Waste Feed		Waste Type	
Capacity	Code				Description		Code	Description	Code	Description	
Emissio	n Source		Date o	of	Date of	Date of		Control Type	N	lanufacturer's	
ID	Туре	Co	nstruc	tion	Operation	Removal	Code	Description	Na	me/Model No.	
Design		_	Desi	gn Ca	pacity Units			Waste Feed		Waste Type	
Capacity	Code				Description		Code	Description	Code	Description	

# New York State Department of Environmental Conservation

# **Air Permit Application**



DEC ID													
			Pro	cess Info	matic	n				Continuati	on Sh	ieet	t(s)
Emission Unit –	Ш				matric					Process			.(3)
			Pro	cess Des	riptio	n						<u> </u>	
Source Classification Code (SCC)		Total Th				<u> </u>	Throug	ghpu	t Quantity U				
,	Qua	ntity/Hr	Qua	ntity/Yr	Co	de			Descriptio	on			
Confidential				ng Schedul			Building		Floo	or/Locatio	n		
Operating at Maximum Capacity	citv	Hour	s/Day	Days	/Year		0			·			
	,						_						
			Emissio	on Point I	dentif	ier(s	s)						
Emission Source/Control Identifier(s)													
Emission Unit -										Process			Γ
			Pro	cess Des	rintio	n					-	<u> </u>	
Source Classification Code (SCC)		Total Th					Throug	ghpu	t Quantity U				
	Qua	ntity/Hr	Qua	ntity/Yr	Co	de			Descriptio	on			
						_		_					
Confidential				ng Schedul			Building		Floo	or/Locatio	n		
Operating at Maximum Capacity	city	Hour	s/Day	Days	/Year		Ŭ						
						ļ							
			Emissio	on Point I	dentif	ier(s	S)						
		Emis	sion So	urce/Con	trol Id	lenti	ifier(s)						
					Ī	_	T	_			_		_
													_



DEC									
	-								
		Pro	cess Emissi	ons Summ	ary		□ Continuation Sheet(s)		
Emission Unit	-						Process		
CAS Number	Contamin	ant Name	% Thruput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined		
	Potential to Emit		Standard	Potenti	ial to Emit	Act	tual Emissions		
(lbs/hr)	(lbs/yr)	(standard units)	Units	How De	etermined	(lbs/hr)	(lbs/yr)		
Emission Unit	-		•				Process		
CAS Number	Contamin	ant Name	% Thruput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined		
	Potential to Emit		Standard	Potenti	ial to Emit	Act	tual Emissions		
(lbs/hr)	(lbs/yr)	(standard units)	Units		etermined	(lbs/hr)	(lbs/yr)		
Emission Unit							Process		
CAS Number		ant Name	% Thruput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined		
CAS Number	Containin		70 mapat				EN NOW Determined		
	Detential to Emit		Standard	Dotonti	ial ta Emit		tual Emissions		
(lbs/hr)	Potential to Emit (lbs/yr)	(standard units)	Standard Units		ial to Emit etermined	(lbs/hr)	tual Emissions (lbs/yr)		
(103/11)	(103/ 91)	(standard units)	Onics	TIOW DO		(103/111)	(103/ 91)		
		Emissio	n Source Er	nissions Su	ummary		Continuation Sheet(s)		
Emission Source							Process		
CAS Number	Contamin	ant Name	% Thruput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined		
	Potential to Emit		Standard		ial to Emit		tual Emissions		
(lbs/hr)	(lbs/yr)	(standard units)	Units	How De	etermined	(lbs/hr)	(lbs/yr)		
<b>Emission Source</b>							Process		
CAS Number	Contamin	ant Name	% Thruput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined		
	Potential to Emit		Standard	Potenti	ial to Emit	Act	tual Emissions		
(lbs/hr)	(lbs/yr)	(standard units)	Units	How De	etermined	(lbs/hr)	(lbs/yr)		
Emission Source							Process		
CAS Number	Contamin	ant Name	% Thruput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined		
	Potential to Emit		Standard Potential to Emit				t Actual Emissions		
(lbs/hr)	(lbs/yr)	(standard units)	Units		etermined	(lbs/hr)	(lbs/yr)		



Department of Environmental Conservation

	DE	EC ID															
-		-															
	F	Emission		Emission	E	missio	n Unit	: Applicable	e Feo	deral F	Reau	uirem	ents		🗆 Continu	ation	Sheet(s)
Emission U	nit	Point	Process	Source		Туре	-	Subpart	-	ection	Sub		Parag		ubparag.	Cl.	Subcl.
						71							0			-	
				-					_					_			
									_								
		Emission	D	Emission		Emi	ission	Unit State	Only	y Requ	iiren	nents	5	Γ	🗆 Continu	ation	Sheet(s)
Emission U	nit	Point	Process	Source	Title	Туре	Part	Subpart	Se	ection	Sub	odiv.	Parag	. Sı	ubparag.	Cl.	Subcl.
												_					
									_								
				En	nission			oliance Ce	rtifi	catio	n				🗆 Continu	ation	Sheet(s)
								itation				<u> </u>					
Title	Туре	e Part	t S	ubpart	Sec	tion	Sub	division	Para	agrapł	ו	Subj	paragra	iph	Clause	Sub	clause
Application	le Feo	deral Requ	irement		□ Stat	e Only	/ Requ	irement							l Capping		
Emission	Unit	Emissi	on F	Process	Emiss	ion	c	AS Number	Contaminant Name								
Linission	onne	Poin	t .	1000055	Sour	се	0,	lo Humber		Containinant Name							
					Ν	/lonit	oring	Informati	on								
Continue Continue	ous Er	mission Mo	onitoring		□ Mo	nitoriı	ng of a	Process or	· Cor	ntrol D	evic	e Par	ameter	rs as	a Surroga	te	
🗆 Intermit			-					nvolving Sp									
□ Ambient	: Air N	/Ionitoring						g/Maintena			dure	es					
					Comp	olianc	e Acti	ivity Desc	ripti	ion							
Work Pra				Proce	ss Mate							R	eferen	ce Te	est Metho	d	
Туре Со	de	Code			Dese	criptio	n										
			Monit	ored Paran	neter						Mar	oufac	turor's	Nam	ne/Model	Numł	or
Code				De	scriptio	n					Iviai	Turac	iturer 3	Ivan	ie/iviouei	Num	
		Limit								Limit	Unit	s					
Upp	er		Lower		Code							escrip	tion				
												-					
	Auc	raging Me	thod				nitorir	The Frequence	<u></u>				Pop	ortin	a Poquiro	monte	
Code	Ave		ription		Code		morir	ng Frequen Descripti	-			Со		Jitin	g Require Descr		
Coue		Desc	приоп		coue			Descripti				0	ue		Descr	ption	



DEC ID

## **Section IV - Emission Unit Information**

Emission	Emission		Emission	n Emission Unit Applicable Federal Requirements (continuation)									
Unit	Point	Process	Source	Title	Туре	Part	Subpart	Section	Subdiv.	Parag.	Subparag.	Clause	

Continuation Sheet <u>8A</u> of \_\_\_\_



	DE															
-		-														
				Dete	rminat	tion o	of Non	-Applicab		itle V A	pplicati	ons Only	/) 🗆	Contin	uation S	heet(s)
Title	<b>T</b>			Cul				Rule Cita		Davia	a un la La d	C I		Claura	- Cult	alawaa
Title	Туре	e Pa	rt	Sut	opart		Sectior	Subdiv	/ision	Paragr	apn	Subparag	graph	Claus	e Sub	clause
						_										
Emissic	on Unit	Emissi	on P	oint	Proces	s I	Emissio	on Source	-	plicable F		-	ent			
									🗆 Sta	ite Only F	Requiren	nent				
						N	lon-A	oplicabilit	y Desc	ription						
								Rule Cita	ation							
Title	Туре	e Pa	rt	Sut	opart		Sectior	-		Paragr	aph	Subparag	raph	Claus	e Sub	clause
	. 764			0.01				00.001		1 41 48				0.0.0.0	00.0	0101010
Emissio	n Unit	Emissi	on P	oint	Proces	c	Emissi	on Source								
Emissic		LIIII33		onne	110003					plicable F		-	ent			
	Image: State Only Requirement       Non- Applicability Description															
						11		phicaphin	y Dest							
			_										_	7.0		Ch+(-)
For only	omissis	n unito u	(hich		t in com			Compliand			an tha	nnlicont				Sheet(s)
		on units w	mich					he time of	-					-		iowing:
Consent	t Order		_		ertified	progr	ess re	ports are to						g /	/	
Emission	Unit	Process		nission		-				cable Fed		1			0	<u> </u>
			S	ource	Title	Туре	Part	Subpa	irt	Section	Subdiv.	Parag.	Subp	arag.	Clause	Subcl.
		R	eme	dial Me	asures	and Ir	iterme	diate Miles	tones				R/I	Da	ite Sched	luled

# New York State Department of Environmental Conservation

# **Air Permit Application**



DE					
	-		<b>.</b>		
Emission Sourc		Request for Emission Reduction (	Credits	L	□ Continuation Sheet(s)
	e	Emission Reduction Descripti	ion		
		Emission Reduction Description			
			<b>.</b>		
		Contaminant Emission Reduction	n Data	Bedu	ıction
Baseline	Period /	_/to//		Date	Method
Dusenne	//	_/////			
CAS Number		Contaminant Name		ERC (	lbs/yr)
CAS Number		Contaminant Name		Netting	Offset
		Facility to Use Future Reducti	ion		
			г т т	Applicatio	on ID
Name			-	-	
Location Address					
□ City/ □ Town ,	/□Village	State			Zip
	-	Use of Emission Reduction Cre	dits	[	□ Continuation Sheet(s)
Emission Sourc	e				
		Proposed Project Descriptio	n		
		Contaminant Emissions Increase	e Data		
CAS Number		Contaminant Name		Project Emissi	on Potential (lbs/yr)
	1 .1 .1.	Statement of Compliance			
	-	o of this "owner/firm" are operating <u>in compli</u> ce certification requirements under Section 1			
or are meeting th			14(a)(3)	of the clean All Ac	a Amenaments of 1990,
		Source of Emission Reduction Credit	t - Facil		
				Permit	
Name			-		
Location Address					
🗆 City/ 🗆 Town ,	/□Village	State			Zip
				== = (1	
<b>Emission Source</b>	CAS Number	Contaminant Name			lbs/yr)
Emission Source		Contaminant Name		ERC (I Netting	bs/yr) Offset
Emission Source		Contaminant Name			



Department of Environmental Conservation

	Conservation										
DEC ID											
Supporting Documentation and Attachments											
Required Supporting Documentation	Date of Document										
□ List of Exempt Activities (attach form)											
🗆 Plot Plan											
Process Flow Diagram											
Methods Used to Determine Compliance (attach form)											
Emissions Calculations											
Optional Supporting Documentation	Date of Document										
Air Quality Model											
Confidentiality Justification											
□ Ambient Air Quality Monitoring Plan or Reports											
Stack Test Protocol											
Stack Test Report											
Continuous Emissions Monitoring Plan											
Lowest Achievable Emission Rate (LAER) Demonstration											
□ Best Available Control Technology (BACT) Demonstration											
Reasonably Available Control Technology (RACT) Demonstration											
Toxic Impact Assessment (TIA)											
Environmental Rating Demonstration											
□ Operational Flexibility Protocol/Description of Alternate Operating Scenarios											
Title IV Permit Application											
Emission Reduction Credit (ERC) Quantification (attach form)											
Baseline Period Demonstration											
Use of Emission Reduction Credits (attach form)											
□ Analysis of Contemporaneous Emissions Increase/Decrease											
Other Supporting Documentation	Date of Document										

# Attachment 2

# Queens Fresh Meadows Facility ID# 2-6306-00071/00003

# Air State Facility Permit Application

**Facility Emission Calculations** 

- Table 1 Equipment Ratings / Annual Fuel Consumption
- Table 2 Facility Wide PTE Rates
- Table 3 Actual Emissions 2011 / 2021
- Table 4A PTE and Max Actual Emission Rates Gas Firing
- Table 4B PTE and Max Actual Emission Rates Oil Firing
- Table 5 PBT Compound Emission Rates Gas Firing Actual
- Table 6A GHG Emissions Actual 2011 / 2021 Average
- Table 6B GHG Emissions PTE Gas Firing
- Table 7 Annual Fuel Consumption 2011 / 2021
- Table 8 Annual Fuel Consumption with trend

## COMBUSTION EQUIPMENT RATINGS

Annual Fuel Consumption Rates

#### Fuel Oil and Gas Parameters (AP-42, Appendix A)

Natural Gas:	1,020	Btu/scf
Residual Oil:	150,000	Btu/gal
Distillate Oil:	140,000	Btu/gal
Diesel Oil:	138,500	Btu/gal
hp:	2,542.5	Btu/hr
kW:	1.341	hp

#### EQUIPMENT SOURCES

BOILER	s	MBH (gas)	GPH (#2-oil)	Heat Input X 10 <sup>6</sup> Btu/hr	Natural Gas SCFH
1	Cleaver Brooks MD7197	16,700	119.3	16.7	16,373
2	Cleaver Brooks MD7197	16,700	119.3	16.7	16,373
3	Cleaver Brooks MD7197:	16,700	119.3	16.7	16,373
4	Cleaver Brooks MD7197:	16,700	119.3	16.7	16,373
5	Cleaver Brooks MD3531	23,400	167.1	23.40	22,941
6	Cleaver Brooks MD3531	23,400	167.1	23.40	22,941
7	Cleaver Brooks MD3531	23,400	167.1	23.40	22,941
8	Cleaver Brooks MD3531	23,400	167.1	23.40	22,941
	Total	160,400	1,146	160	157,255

Annual Fi	uel Consumptior	n Rates
	#2-Oil	Nat'l Gas
Year	gallons	X 10 <sup>6</sup> SCF
2011	48916	264.3
2012	11685	243.0
2013	45636	231.4
2014	290763	255.4
2015	228088	268.8
2016	63616	273.2
2017	61145	250.4
2018	78361	281.9
2019	71460	286.8
2020	13898	198.9
2021	14308	285.5
Average	84352	258
Maximum	290763	287

#### Table 2

#### **Queens Fresh Meadows Facility**

### 67-10 192nd St., Flushing, NY 11365

#### FACILITY-WIDE POTENTIAL TO EMIT

			Air Con	taminant		
	Particulate Matter	Nitrogen Oxides	Carbon Monoxide	Sulfur Dioxide	Volatile Organic Compounds	Hazardous Air Pollutants
	(PM <sub>10</sub> )	(NO <sub>x</sub> )	(CO)	(SO <sub>2</sub> )	(VOC)	(HAPs)
		Facility-	wide Thresholds	(tpy) - Nonattaini	ment area	
Emission Unit	100	25	100	100	25	10/25
<u>Boilers</u>						
Natural Gas	3.93	68.9	57.86	0.41	3.79	1.30
#2-Oil	5.02	100.36	25.09	1.07	1.71	0.034
<u>Chillers</u>						
NA						
EMERGENCY GENERATORS NA						
Maximum Facility PTE (tpy)	5.02	100.36	57.86	1.07	3.79	1.30

NOTES:

**Bold** denotes exceedance of applicable threshold.

tpy = tons per year

PTE totals for the facility represent the worst case scenario - eight boilers operating at full capacity for 8760 hours

HAP emissions threshold of 10/25 tpy means 10 tpy of any single HAP or 25 tpy of all HAPs.

Table 2- PTE Calcs (tpy)

C:\Users\rrao\Dropbox\Terranext Team Folder\CABINET\_E\Clients\Fresh Meadows\Emission Calcs\Fresh Meadows Air Emissions Calculations -

### Table 3

## **Queens Fresh Meadows Facility**

## 67-10 192nd St., Flushing, NY 11365

## Maximum Gas / Oil ACTUAL EMISSIONS Years 2011 - 2021

			Air Con	taminant				
	Particulate Matter	Nitrogen Oxides	Carbon Monoxide	Sulfur Dioxide	Volatile Organic Compounds	Hazardous Air Pollutants		
	(PM <sub>10</sub> )	(NO <sub>x</sub> )	(CO)	(SO <sub>2</sub> )	(VOC)	(HAPs)		
	Facility-wide Thresholds (tpy) - Nonattainment area							
Emission Unit	100	25	100	100	25	10/25		
<u>Boilers</u> Natural Gas [Max] #2-Oil [Max] CHILLERS	0.82 0.15	14.34 2.91	12.04 0.73	0.09 0.03	0.79 0.05	0.2708 0.0010		
NA								
EMERGENCY GENERATORS NA								
Total Facility Emissions (tpy) *	0.96	17.25	12.77	0.12	0.84	0.27		

NOTES:

\* Total facility emissions include operation of the boilers at maximum fuel consumption for nat'l gas and #2 oil for years 2011 through 2021

Bold denotes exceedance of applicable threshold.

tpy = tons per year

HAP emissions threshold of 10/25 tpy means 10 tpy of any single HAP or 25 tpy of all HAPs. Table 3- Actual Emissions 2019 C:\Users\rrao\Dropbox\Terranext Team Folder\CABINET\_E\Clients\Fresh Meadows\Emission Calcs\Fresh Meadows Air Emissions Calculations - 5\_5\_22 Table 4A

#### Queens Fresh Meadows Facility 67-10 192nd St., Flushing, NY 11365

#### PTE and Maximum Annual Fuel Consumption Emissions

Boilers - Natural Gas			PTE 160	MMBtu/hr	Actual 286.778	#REF!
Compound	CAS No.	Emission Factor <sup>1</sup> (Ib/10 <sup>6</sup> scf)	Potential to Emit (lb/yr) <sup>2</sup>	Potential to Emit (tpy) <sup>2</sup>	Actual Emissions (lb/yr) <sup>3</sup>	Actual Emissions (tpy) <sup>3</sup>
РМ	NY075-00-0	7.6	10469	5.23	2180	1.09
PM-2.5	NY075-02-5	1.9	2617	1.31	545	0.27
PM-10	NY075-00-5	5.7	7852	3.93	1635	0.82
NOx <sup>4</sup>	NY210-00-0	100	137755	68.88	28678	14.34
со	00630-08-0	84	115714	57.86	24089	12.04
CO2	00124-38-9	120,000	165306353	82,653	34413412	17,207
SO2	07446-09-5	0.6	827	0.41	172	0.09
VOC	NY998-00-0	5.5	7577	3.79	1577	0.79
Total HAPs*	_	-	2601	1.30	542	0.27
2-Methylnaphthalene*	00091-57-6	2.40E-05	0.033	1.65E-05	0	3.44E-06
Acenaphthene*	00083-32-9	1.80E-06	0.002	1.24E-06	0	2.58E-07
Acenaphthylene*	00203-96-8	1.80E-06	0.002	1.24E-06	0	2.58E-07
Anthracene*	00120-12-7	2.40E-06	0.002	1.65E-06	0	3.44E-07
Arsenic*	07440-38-2	2.00E-04	0.276	1.38E-04	0	2.87E-05
Barium	07440-39-3	4.40E-03	6	3.03E-03	1	6.31E-04
Benzene*	00071-43-2	2.10E-03	3	1.45E-03	1	3.01E-04
Benzo(a)anthracene*	00056-55-3	1.80E-06	0.002	1.24E-06	0	2.58E-07
Benzo(a)pyrene*	00050-32-8	1.20E-06	0.002	8.27E-07	0	1.72E-07
Benzo(b,k)fluoranthene*	00205-99-2	1.80E-06	0.002	1.24E-06	0	2.58E-07
Benzo(g,h,i)perylene*	00191-24-2	1.20E-06	0.002	8.27E-07	0	1.72E-07
Beryllium*	07440-41-7	1.20E-05	0.002	8.27E-06	0	1.72E-06
Butane	00106-97-8	2.10E+00	2893	1.45	602	0.30
Cadmium*	07440-43-9	1.10E-03	2000	7.58E-04	0	1.58E-04
Chromium*	07440-47-3	1.40E-03	2	9.64E-04	0	2.01E-04
Chrysene	00218-01-9	1.80E-06	0.0	1.24E-06	0	2.58E-07
Cobalt*	07440-48-4	8.40E-05	0.1	5.79E-05	0	1.20E-05
Copper	07440-50-8	8.50E-04	1	5.85E-04	0	1.22E-04
Dibenzo(a,h)anthracene*	00053-70-3	1.20E-06	0	8.27E-07	0	1.72E-07
Dichlorobenzene*	25321-22-6	1.20E-00	2	8.27E-07	0	1.72E-07
Ethane	00074-84-0	3.10E+00	4270	2.14	889	0.44
Fluoranthene*	00206-44-0	3.00E-06	0.004	2.14 2.07E-06	0	4.30E-07
Fluorene*	00208-44-0	2.80E-06	0.004	1.93E-06	0	4.01E-07
Formaldehyde*	00050-00-0	7.50E-02	103.32	0.05	22	1.08E-02
Hexane*	00110-54-3	1.80E+00	2480	1.24	516	0.26
Indeno(1,2,3-cd)pyrene*		1.80E-06	0.0		0	2.58E-07
Lead*	00193-39-5	5.00E-06	0.0	1.24E-06 3.44E-04	0.143	
Manganese*	07439-92-1 07439-96-5	3.80E-04				7.17E-05
Mercury*		2.60E-04	0.5	2.62E-04	0	5.45E-05
	07439-97-6		0.4	1.79E-04	0	3.73E-05
Methane	00074-82-8	2.30E+00	3168	1.58	660	0.33
Molybdenum	07439-98-7	1.10E-03	2	7.58E-04	0	1.58E-04
Naphthalene*	00091-20-3	6.10E-04	0.8	4.20E-04	0	8.75E-05
Nickel*	07440-02-0	2.10E-03	3	1.45E-03	1	3.01E-04
Nitrous Oxide	10024-97-2	6.40E-01	882	0.44	184	0.09
Pentane	00109-66-0	2.60E+00	3582	1.79	746	0.37
Phenanthrene*	00085-01-8	1.70E-05	0.0	1.17E-05	0	2.44E-06
Propane	00074-98-6	1.60E+00	2204	1.10	459	0.23

Table 4A-Boilers Natural Gas

C:\Users\rrao\Dropbox\Terranext Team Folder\CABINET\_E\Clients\Fresh Meadows\Emission Calcs\Fresh Meadows Air Emissions Calculations -5\_5\_22

#### Table 4A

#### Queens Fresh Meadows Facility 67-10 192nd St., Flushing, NY 11365

#### PTE and Maximum Annual Fuel Consumption Emissions

			PTE		Actual	
Boilers - Natural Gas		160	MMBtu/hr	286.778	#REF!	
Compound	CAS No.	Emission Factor <sup>1</sup> (lb/10 <sup>6</sup> scf)	Potential to Emit (lb/yr) <sup>2</sup>	Potential to Emit (tpy) <sup>2</sup>	Actual Emissions (lb/yr) <sup>3</sup>	Actual Emissions (tpy) <sup>3</sup>
Pyrene*	00129-00-0	5.00E-06	0.007	3.44E-06	0	7.17E-07
Selenium*	07782-49-2	2.40E-05	0.03	1.65E-05	0	3.44E-06
Toluene*	00108-88-3	3.40E-03	5	2.34E-03	1	4.88E-04
Vanadium	07440-62-2	2.30E-03	3	1.58E-03	1	3.30E-04
Zinc	07440-66-6	2.90E-02	40	2.00E-02	8	4.16E-03

Notes:

\* Hazardous Air Pollutants (HAPs); Total HAPs is the sum of all HAP compounds.

<sup>1</sup> Source: USEPA AP-42; Section 1.4 Natural Gas Combustion.

<sup>2</sup> Potential emissions based on annual operation of 8 boilers for 8,760 hours per year.

<sup>3</sup> Actual emissions based on maximum nat'l gas fuel consumption for years 2011 thorugh 2021

<sup>4</sup> NOx emission factor is based on uncontrolled - emission factor :

100 lbs NOx per million cubic feet natural gas fired.

#### PTE and Maximum Annual Fuel Consumption Emissions

Boilers - No. 2 Oil (For Boil	lers less than 100 MME	3tu/hr)	<mark>РТЕ</mark> 1,146	gal/hr <sup>+</sup>	Actual 290,763	gallons/year	
Compound	CAS No.	Emission Factor <sup>1</sup> (Ib/10 <sup>3</sup> gal)	Potential to Emit (lb/yr) <sup>2</sup>	Potential to Emit (tpy) <sup>2</sup>	Actual Emissions (lb/yr) <sup>3</sup>	Actual Emissions (tpy) <sup>3</sup>	
PM	NY075-00-0	2.00	20,073	10.04	582	0.29	
PM-10	NY075-00-5	1.00	10,036	5.02	291	0.15	
NOx	NY210-00-0	20	200,729	100.36	5,815	2.91	
CO	00630-08-0	5	50,182	25.09	1,454	0.73	
CO2	00124-38-9	22,300	223,812,994	111,906	6,484,015	3,242	
SO2 <sup>4</sup>	07446-09-5	0.21	2,138	1.07	62	0.03	
SO3	07446-11-9	0.003	30.11	0.015	1	4.36E-04	
VOC <sup>5</sup>	NY998-00-0	0.34	3,412	1.71	99	0.05	
Total HAPs*	-	-	68.9	0.034	2.0	9.97E-04	
Trace Elements from Disti	llate Fuel Oil Combusti	ion (lb/10 <sup>12</sup> BTU)					
Arsenic*	07440-38-2	4	5.62	2.81E-03	0.16	8.14E-05	
Beryllium*	07440-41-7	3	4.22	2.11E-03	0.12	6.11E-05	
Cadmium*	07440-43-9	3	4.22	2.11E-03	0.12	6.11E-05	
Chromium*	07440-47-3	3	4.22	2.11E-03	0.12	6.11E-05	
Copper	07440-50-8	6	8.43	4.22E-03	0.24	1.22E-04	
Lead*	07439-92-1	9	12.65	6.32E-03	0.37	1.83E-04	
Manganese*	07439-96-5	6	8.43	4.22E-03	0.24	1.22E-04	
Mercury*	07439-97-6	3	4.22	2.11E-03	0.12	6.11E-05	
Nickel*	07440-02-0	3	4.22	2.11E-03	0.12	6.11E-05	
Selenium*	07782-49-2	15	21.08	1.05E-02	0.61	3.05E-04	
Zinc	07440-66-6	4	5.62	2.81E-03	0.16	8.14E-05	

Notes:

+ Potential emissions are based on the maximum operation of 8 boilers at one time (at 100% load) for 8760 hours per year.

\* Hazardous Air Pollutants (HAPs); Total HAPs is the sum of all HAP compounds.

<sup>1</sup> Source: USEPA AP-42; Section 1.3 Fuel Oil Combustion.

<sup>2</sup> Potential emissions based on annual operation of 8 boilers (based on operational design limitations) for 8,760 hours per year.

<sup>3</sup> Actual emissions are based on actual maximum annual fuel consumption for the years 2011 - 2021

<sup>4</sup> Based on a maximum fuel oil sulfur content of 0.0015% as per 6 NYCRR Part 225-1.2(f). NOx emission factor is based on controlled - Low NOx burners with flue gas recirculation.

Sulfur Content of Residual Oil: 0.0015

<sup>5</sup> Reported as total non-methane hydrocarbon; assumed entire fraction as VOC.

<sup>6</sup> Heating Value of No. 2 Fuel Oil 140,000 BTU/gal

## **ACTUAL EMISSION ESTIMATES - GAS FIRING**

## Subpart 201-9

Significant Mass Emission Rates for Persistent, Bioaccumulative and Toxic Compounds

		Allowable Emissions	Actual
CAS Number	Contaminant Name	(pounds per year)	Emissions (1)
000050-00-0	Formaldehyde	100	21.51
000056-23-5	Carbon tetrachloride	100	
000062-53-3	Aniline	1000	
000064-67-5	Diethyl sulfate	100	
000067-66-3	Chloroform	100	
000071-43-2	Benzene	100	0.60
000074-90-8	Hydrogen cyanide	500	
000075-01-4	Vinyl chloride	100	
000075-07-0	Acetaldehyde	1,000	
000075-09-2	Dichloromethane	5000	
000075-21-8	Ethylene oxide	25	
000075-36-5	Acetyl chloride	1000	
000077-78-1	Dimethyl sulfate	250	
000078-87-5	Propylene dichloride	1000	
000079-00-5	1,1,2 Trichloroethane	100	
000079-01-6	Trichloroethylene	1000	
000079-06-1	Acrylamide	1	
000079-11-8	Chloroacetic acid	1000	
000079-34-5	1,1,2,2-tetrachloroethane	1000	
000079-46-9	2-nitropropane	5000	
000091-22-5	Quinoline	25	
000091-94-1	3,3'-dichlorobenzidine	25	
000092-87-5	Benzidine	1	

## **ACTUAL EMISSION ESTIMATES - GAS FIRING**

## Subpart 201-9

Significant Mass Emission Rates for Persistent, Bioaccumulative and Toxic Compounds

CAS Number	Contominant Name	Allowable Emissions	Actual
CAS Number	Contaminant Name	(pounds per year)	Emissions (1)
000095-53-4	O-toluidine	5000	
000096-09-3	Styrene oxide	1	
000096-45-7	Ethylene thiourea	100	
000097-93-8	Triethylaluminum	1000	
000100-44-7	Benzyl chloride	25	
000106-93-4	1,2-dibromoethane	5	
000106-99-0	1,3-butadiene	25	
000107-02-8	Acrolein	5	
000107-06-2	1,2-dichloroethane	100	
000107-13-1	Acrylonitrile	25	
000107-18-6	Allyl alcohol	1000	
000109-86-4	2-methoxy ethanol	5000	
000120-82-1	1,2,4 trichlorobenzene	5000	
000122-66-7	Diphenyl hydrazine	5	
000127-18-4	Perchloroethylene	1000	
000302-01-2	Hydrazine	0.1	
000542-75-6	1,3-dichloropropene	500	
000593-60-2	Vinyl bromide	500	
000625-31-0	4-penten-2-ol	500	
001336-36-3	Polychlorinated biphenyls (PCBs)**	0.1	
001395-21-7	Subtilisins	0	

## ACTUAL EMISSION ESTIMATES - GAS FIRING

## Subpart 201-9

Significant Mass Emission Rates for Persistent, Bioaccumulative and Toxic Compounds

		Allowable Emissions	Actual
CAS Number	Contaminant Name	(pounds per year)	Emissions (1)
001746-01-6	2,3,7,8 TCDD TEF* Polychlorinated Dibenzodioxins** Polychlorninated Dibenzofurans**	0.0001	
002465-27-2	Auramine	0.1	
007440-62-2	Vanadium	25	
007550-45-0	Titanium tetrachloride	0.1	
007632-00-0	Sodium nitrite	1000	
007784-42-1	Arsine	25	
009014-01-1	Subtilisins, fermentation product	0	
018540-29-9	Chromium (VI)	0.1	
	Pesticide, herbicide, rotenticide, insecticide***	0	
	Polycyclic organic matter (POM)**	1	
	Cadmium compounds	25	0.24
	Manganese compounds	10	0.49
	Beryllium compounds	1	0.24
	Nickel compounds	10	0.24
	Diisocyanate compounds	25	
	Mercury compounds	5	0.24
	Arsenic compounds	1	0.33
	Chromium compounds	250	0.24
	PTFE (decomposition)	0	

\* Toxic equivalency factor for dibenzodioxin and dibenzofuran defined by the USEPA.

## **ACTUAL EMISSION ESTIMATES - GAS FIRING**

## Subpart 201-9

## Significant Mass Emission Rates for Persistent, Bioaccumulative and Toxic Compounds

		Allowable	Actual
CAS Number	Contaminant Name	Emissions	Actual
CAS Number	Containinant Name	(pounds per	Emissions (1)
		year)	Emissions (1)

\*\* See the definition in Part 200 of this Title.

\*\*\* Aldrin/Dieldrin (000309-00-2), Chlordane (000191-24-2 and 012789-03-6), DDE (000072-55-9), DDT (000050-29-3), Heptachlor (000076-44-8), Hexachlorobenzene (000118-74-1), Isodrin (000465 73-6), Methoxychlor (000072-43-5), Octachlorostyrene (029082-74-4), Pendimethalin (040487-42-1), Pentachlorobenzene (000608-93-5), Tetrabromobisphenol A

(1) Based onActual for natural gas and #2-oil firing

#### Fresh Meadows Greenhouse Gas (GHG) 40 CFR Part 98 Actual Emissions Average Gas and Oil Consumption: 2011 - 2021

Table 6 A

Pollutant Carbon Dioxide Nitrous Oxide Methane	CAS # 124-38-9 10024-97-2 74-82-8	Table C1 EF Natural Gas 5.30E+01	Distillate Oil kg CO <sub>2</sub> /mmBtu 7.40E+01	Residual Oil 75.1	Note 1 Global Warming Potential (100 years) 1 310 21						
40CFR Part 98		Table C1				Table C2				1	
	C	arbon Dioxide (C	O <sub>2</sub> )		Nitrous Oxide (N <sub>2</sub> 0)		M	ethane (CH <sub>4</sub> )	)		
<i>,</i>	Natural Gas	#6-oil	#2-oil	Natural Gas	#6-oil	#2-oil	Natural Gas	#6-oil	#2-oil	]	
HHV 10 <sup>6</sup> Btu/ scf	0.001028			0.001028			0.001028				
EF kg [ Contam.] / $10^6$ Btu	53.02	75.1	73.96	0.0001	0.006	0.006	0.001	0.003	0.006		
HHV 10 <sup>6</sup> Btu/ gallon		0.15	0.138		0.15	0.15		0.15	0.15		
Conversion Factor Table A-2 EF lbs [Contam.] / 10 <sup>6</sup> Btu	116.9	165.6	163.1	Lbs/Kg 2.20462 0.00022	Metric Tons /Short Tons 0.90718 0.0132	0.0132	0.0022	0.00661	0.01323	2000 2204.63414	
PTE Fuel Use			PTE A	Annual Emissions	(Metric Tons) CH <sub>4</sub>		CO <sub>2</sub>	(Metric N <sub>2</sub> O	Tons/yr) CH <sub>4</sub>	Annual Total	Notes
Nat Gas (SCF) - Actual Firing Rate	258,141,444		17096	0.03	0	Nat Gas (SCF)	17096	10	7	17113	2
Distillate Oil (Gal)-Emergency Generators			0	0.00000	0.0000	Distillate Oil (Gal)	0	0.00	0.000	0	3
Distillate #2 Oil (Gal) - Boilers	84,352	Totals	1155 18251	0.092	0.00	#2-Oil (Gal)	<u>1155</u> 18251	29 39	0.013	1183 18296	2
		101815	10251	v	v		10251		0.70	10270	

2204.6lbs/metric ton40236489lbs CO2e/yr

40336528 40.34 X10<sup>6</sup> lbs.



Notes:

1 Global warming potentials are from Table A-1 Subpart A of Part 98.

2 Part 98 Subpart C-98.30(a): Stationary Steam Generating Boilers

3 Part 98 Subpart C-98.30(b)(2): Emergency Generators are Exempt

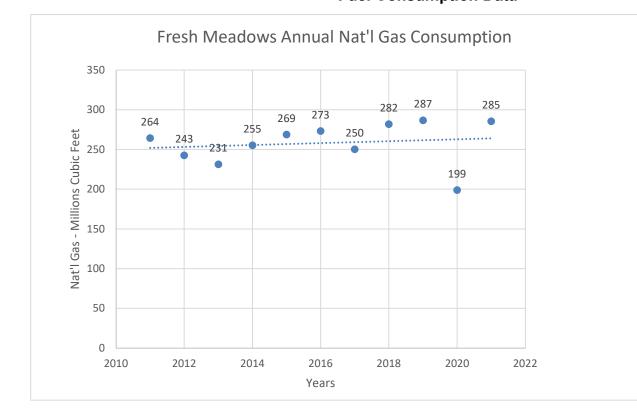
#### Table 6 B **Gresh Meadows** Greenhouse Gas (GHG) 40 CFR Part 98 **PTE Emissions -Gas**

Pollutant Carbon Dioxide Nitrous Oxide Methane	CAS # 124-38-9 10024-97-2 74-82-8	Table C1 EF Natural Gas 5.30E+01	Distillate Oil kg CO <sub>2</sub> /mmBtu 7.40E+01	Residual Oil 75.1	Note 1 Global Warming Potential (100 years) 1 310 21						
40CFR Part 98		Table C1		[		Table C2				1	
locificitat yo	(	Carbon Dioxide (C	O <sub>2</sub> )		Nitrous Oxide (N <sub>2</sub> 0)	14010-02	M	ethane (CH4	)	-	
	Natural Gas	#6-oil	#2-oil	Natural Gas	#6-oil	#2-oil	Natural Gas	#6-oil	#2-oil	1	
HHV 10 <sup>6</sup> Btu/ scf	0.001028			0.001028			0.001028			-	
EF kg [ Contam.] / 10 <sup>6</sup> Btu	53.02	75.1	73.96	0.0001	0.006	0.006	0.001	0.003	0.006		
HHV 10 <sup>6</sup> Btu/ gallon		0.15	0.138		0.15	0.15		0.15	0.15		
Conversion Factor Table A-2 EF lbs [Contam.] / 10 <sup>6</sup> Btu	116.9	165.6	163.1	Lbs/Kg 2.20462 0.00022	Metric Tons /Short Tons 0.90718 0.0132	0.0132	0.0022	0.00661	0.01323	2000 2204.63414	
				Annual Emissions					Tons/yr)		
PTE Fuel Use	_		CO <sub>2</sub>	N <sub>2</sub> O	CH <sub>4</sub>		CO <sub>2</sub>	N <sub>2</sub> O	CH <sub>4</sub>	Annual Total	Notes
Nat Gas (SCF) - PTE Firing Rate Distillate Oil (Gal)-Emergency Generator	1,377,552,94	l	91233 0	0.17 0.00000	2 0.0000	Nat Gas (SCF) Distillate Oil (Gal)	91233 0	53 0.00	36 0.000	91322 0	2 3
Distillate #2 Oil (Gal) - Boilers	15		0	0.0000	0.00	#2-Oil (Gal)	0	0.00	0.000	0	2
		Totals	91233	0	2	( )	91233	53	36.14	91322	-
					Table A-1 Subpart A of Part ary Steam Generating Boilers		2204.6 1 201135137	bs/metric to lbs CO2e/yı		201332403 201.33	X10 <sup>6</sup> lbs.
TER RANEX	$\mathbf{P}$	2 3		. ,	rgency Generators are Exem						

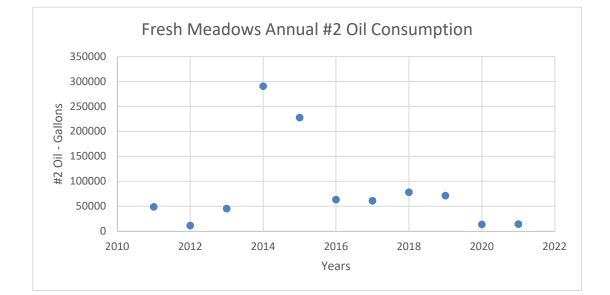
# Table 7Fresh MeadowsActual Annual Fuel ConsumptionYears: 2011 - 2021

Nat'l Gas									
	DKT	therm	Btu	Natural Gas:	1,020	Btu/scf			NOx
		1	100000					Gas	Oil
Year	1	10	1000000					lbs./10 <sup>6</sup> S	CF lbs./gal
				_				100	0.02
				#2-Oil		NOx - tons/y	ſ		
Year	Therms	X10 <sup>6</sup> Btu	X 10 <sup>6</sup> SCF	Gallons	Gas	Oil	Total		
2011	2696120	269612	264.3	48916	13.2	0.49	13.71	-	
2012	2474100	247410	242.6	11685	12.1	0.12	12.24		
2013	2359990	235999	231.4	45636	11.6	0.46	12.02		
2014	2604590	260459	255.4	290763	12.8	2.91	15.68		
2015	2742100	274210	268.8	228088	13.4	2.28	15.72		
2016	2786360	278636	273.2	63616	13.7	0.64	14.29		
2017	2553620	255362	250.4	61145	12.5	0.61	13.13		
2018	2875660	287566	281.9	78361	14.1	0.78	14.88		
2019	2925140	292514	286.8	71460	14.3	0.71	15.05		
2020	2029230	202923	198.9	13898	9.9	0.14	10.09		
2021	2912060	291206	285.5	14308	14.3	0.14	14.42		
				0 40 50					
Average	2632634	263263	258	84352	12.9	0.8	13.7		
Maximum	2925140	292514	286.8	290763	14.3	2.9	15.7		

## Table 8 Fresh Meadows Fuel Consumption Data



Year	X 10 <sup>6</sup> SCF
2011	264
2012	243
2013	231
2014	255
2015	269
2016	273
2017	250
2018	282
2019	287
2019 2020 2021	199 285
Average	258
Maximum	287



	#2-Oil
Year	Gallons
2011	48916
2012	11685
2013	45636
2014	290763
2015	228088
2016	63616
2017	61145
2018	78361
2019	71460
2020	13898
2021	14308
Average	84352
Maximum	290763

Fuel T8 resh Meadows Air Emissions Calculations - 5\_5\_22 Attachment 3

Queens Fresh Meadows Facility ID# 2-6306-00071/00003

List of Exempt Activities

New York Air Darmít	New York State Department of Environmental Conservation	nt of ental ion
2 - 6 3 0		
	List of Exempt Activities	
	Instructions	
Applicants fo facility. This 1 In order to co used in the T correspondir	Applicants for Title V facility permits must provide a listing of each exempt activity, as described in 6 NYCRR Part 201-3.2(c), that is currently operated at the facility. This form must be provided with each application for a new Title V facility permit and Title V facility permit renewal, or whenever changes are necessary. In order to complete this form, enter the number and building location of each exempt activity conducted. Building IDs used on this form should match those used in the Title V permit application. Provide all additional information where requested. If a listed activity is not operated at the facility, leave the corresponding information blank.	essary. Dse
Rule Citation 201-3.2(c)	Number Bu Description Activities	Building Location
	Combustion	
	-	64-19 186
		Lane. Heat innut gas
	~	onlymax 1.5
(T)		mmBtu/hr each.
	listed, attach documentation indicating the date of construction, heat input (MMBtu/hr), and the type of	installed 2013
	d in 6 NYCRR Subpart 2	
(2)	under common control, alone or in conjunction with used oil generated by a do-it-yourself oil changer as described in 6 0	
	NTCKR Subpart 3/4-2.	
	Stationary or portable internal combustion engines that are liquid or gaseous tuel powereu and notated within the new normal component of brown of Blooming Grove, Chester, Highlands, Monroe, Tuxedo, Warwick, or City metropolitan area or the Orange County towns of Blooming Grove, Chester, Highlands, Monroe, Tuxedo, Warwick, or	
(3)(i)	Woodbury, and have a maximum mechanical power rating of less than 200 brake horsepower.	
esserve and a second	For each activity listed, attach documentation indicating the date of construction, engine model year, engine rating (hp), displacement (L/cylinder), type of fuel combusted, and EPA issued certificate of conformity.	
		×

Ļ

New York Air Permit	New York State Department of Environmental Conservation Air Permit Application	it of ntal on
2 - 6 3 D	Dete of Form 2/28/2023	
Rule Citation 201-3.2(c	Description	Building Location
(3)(ii)	Stationary or portable internal combustion engines that are liquid or gaseous fuel powered and located outside of the New York City metropolitan area or the Orange County towns of Blooming Grove, Chester, Highlands, Monroe, Tuxedo, Warwick, or Woodbury, and have a maximum mechanical power rating of less than 400 brake horsepower. For each activity listed, attach documentation indicating the date of construction, engine model year, engine rating (hp), displacement (L/cylinder), type of fuel combusted, and EPA issued certificate of conformity.	and any space of the state of the
(3)(iii)	Stationary or portable internal combustion engines that are gasoline powered and have a maximum mechanical power rating 0 of less than 50 brake horsepower.	
(4)	Reserved.	
(5)	1.3 mm Stay 3	64-45 188 st
(9)	Emergency power generating stationary internal combustion engines, as defined in 6 NYCRR Part 200.1(cg). Stationary internal combustion engines used for peak shaving and/or demand response programs are not exempt. For each activity listed, attach documentation indicating the date of construction, engine model year, engine rating (hp). displacement (L/cylinder), type of fuel combusted, and EPA issued certificate of conformity.	
	Combustion Related	
(2)	Non-contact water cooling towers and water treatment systems for process cooling water and other water containers 0 designed to cool, store or otherwise handle water that has not been in direct contact with gaseous or liquid process streams.	
	Agricultural	
(8)	Feed and grain milling, cleaning, conveying, drying and storage operations including grain storage silos, where such silos exhaust to an appropriate emissions control device, excluding grain terminal elevators with permanent storage capacities 0 over 2.5 million U.S. bushels, and grain storage elevators with capacities above one million bushels.	

N

New York	New York State Department of Environmental Conservation	<del></del>	Department of
Air Permii	Air Permit Application		Environmental Conservation
2 - 6 3 0		Date of Form 2/28/2022	L.
Rule Citation 201-3.2(c)	Description	Number of Activities	Building Location
(6)	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.	0	
	Commercial - Food Service Industries		
(10)	Flour silos at bakeries, provided all such silos are exhausted through an appropriate emission control device.	0	
(11)	Emissions from flavorings added to a food product where such flavors are manually added to the product.	0	
	Commercial - Graphic Arts		
(12)	Screen printing inks/coatings or adhesives which are applied by a hand-held squeegee. A hand-held squeegee is one that is not propelled though the use of mechanical conveyance and is not an integral part of the screen printing process.	0	
(13)	Graphic arts processes at facilities located outside the New York City metropolitan area or the Orange County towns of Blooming Grove, Chester, Highlands, Monroe, Tuxedo, Warwick, or Woodbury whose facility-wide total emissions of volatile organic compounds from inks, coatings, adhesives, fountain solutions and cleaning solutions are less than three tons during any 12-month period.	0	
(14)	Graphic label and/or box labeling operations where the inks are applied by stamping or rolling.	0	
(15)	Graphic arts processes which are specifically exempted from regulation under 6 NYCRR Part 234, with respect to emissions of volatile organic compounds which are not given an A rating as described in 6 NYCRR Part 212.	0	
	Commercial - Other		
(16)	Gasoline dispensing sites registered with the department pursuant to 6 NYCRR Part 513.	0	

w York Permit	New York State Department of Environmental Conservation	MEW YORK Depar Stort Of Enviro	Department of Environmental Conservation
(1310) 61310		Date of Form 2/28/2022	MNC
Rule Citation 201-3.2(c)		Number of Activities	Building Location
	Surface coating and related activities at facilities which use less than 25 gallons per month of total coating materials, or with actual volatile organic compound emissions of 1,000 pounds or less from coating materials in any 12-month period. Coating materials include all paints and paint components, other materials mixed with paints prior to application, and cleaning solvents, combined. This exemption is subject to the following:		
(17)	(i) The facility is located outside of the New York City metropolitan area or the Orange County towns of Blooming Grove, Chester, Highlands, Monroe, Tuxedo, Warwick, or Woodbury; and		nnen k
	(ii) 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.	0	
(19)	Ultraviolet curing operations.		
	Municipal/Public Health Related		
(20)	Landfill gas ventilating systems at landfills with design capacities less than 2.5 million megagrams (3.3 million tons) and 2.5 million cubic meters (2.75 million cubic yards), 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 6 NYCRR Part 360 permit, or order on consent.	عد 11: 0	
	Storage Vessels		
(21)	Distillate fuel oil, residual fuel oil, and biodiesel storage tanks with storage capacities below 300,000 barrels.	0	
(22)	Pressurized fixed roof tanks which are capable of maintaining a working pressure at all times to prevent emissions of volatile organic compounds to the outdoor atmosphere.	1le 0	
(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.	0 	

4

DEC ID       DEC ID         2] - 6 3 0 6 - 3 0 6 - 1 0 0 0 7 1 1       x         Rule       External floating roof tanks white         201-3.2(c)       Iquid-mounted foam seal;         (i) a liquid-mounted foam seal;       (ii)         (iii) a liquid-mounted foam seal;       (iii)         (24)       (ii) a liquid-mounted foam seal;         (24)       (ii) a liquid-mounted liquid-fille         (iv) equivalent control equipme       (iv) equivalent control equipme         (25)       Storage tanks, including petrole         (26)       Horizontal petroleum or volatil         (27)       Externation does not include ray			
		Date of Form 2/28/2022	
		Number	Riidine
	Description	of Activities	Location
	External floating roof tanks which are used for the storage of a petroleum or volatile organic liquid with a true vapor pressure less than 4.0 psi (27.6 kPa), are of welded construction and are equipped with one of the following:		
	shoe seal;	<	
	ted foam seal;	⇒	
	(iii) a liquid-mounted líquid-filled type seal; or	<u> </u>	
	(iv) equivalent control equipment or device.		
	Storage tanks, including petroleum liquid storage tanks as defined in 6 NYCRR Part 229, and liquid asphalt storage tanks with capacities less than 10,000 gallons, except those subject to 6 NYCRR Part 229 or Part 233.	0	
	Horizontal petroleum or volatile organic liquid storage tanks.	0	
	Storage of solid materials, provided all such storage is exhausted through an appropriate emission control device. This exemption does not include raw material, clinker, or finished product storage at Portland cement plants.	0	
	Industrial		
Processing equipm August 31, 1983, w not include proces suppression.	Processing equipment at existing sand and gravel and stone crushing plants which were installed or constructed before August 31, 1983, where water is used for operations such as wet conveying, separating, and washing. This exemption does not include processing equipment at existing sand and gravel and stone crushing plants where water is used for dust suppression.	0	
(29)(i) Sand and gravel, cr that are a permane	Sand and gravel, crushed stone, concrete, or recycled asphalt processing lines at non-metallic mineral processing facilities that are a permanent or fixed installation with a maximum rated processing capacity of 25 tons of minerals per hour or less.	0	
(29)(ii) Sand and gravel, ci that are a portable	Sand and gravel, crushed stone, concrete, or recycled asphalt processing lines at non-metallic mineral processing facilities that are a portable emission source with a maximum rated processing capacity of 150 tons of minerals per hour or less.	0	

ഹ

New York Air Permit	New York State Department of Environmental Conservation Air Permit Application	Travyork Department of Sintof Organization Conservation	ent of tion
	ECID	Date of Form 2/28/2022	
2 - 6 3 0	6 - 0 0 0 2 1 I		
Rule Citation 201-3.2(c)	Description	Number B of Activities	Building Location
(11) (29)	Sand and gravel, crushed stone, concrete, or recycled asphalt processing lines at non-metallic mineral processing facilities that are used exclusively to screen minerals at a facility where no crushing or grinding takes place.	0	
(30)	Reserved.		
(31)	Surface coating operations which are specifically exempted from regulation under 6 NYCRR Subparts 228-1 and 228-2, with respect to emissions of volatile organic compounds which are not given an A rating pursuant to 6 NYCRR Part 212.	0	
(32)	Pharmaceutical tablet branding operations.	0	
(33)	Thermal packaging operations, including, but not limited to, therimage labeling, blister packing, shrink wrapping, shrink banding, and carton gluing.	0	
(34)	Powder coating operations.	0	
(35)	All tumblers used for the cleaning and/or deburring of metal products without abrasive blasting.	0	
(36)	Presses used exclusively for molding or extruding plastics except where halogenated polymers are used or where halogenated carbon compounds or hydrocarbon solvents are used as foaming agents.	0	
(37)	Concrete batch plants where the cement weigh hopper and all bulk storage silos are exhausted through fabric filters, and the harch drop point is controlled by a shroud or other emission control device.	ے م	
(38)		0	
(i)(39)(i)	ing degreasers with an open surface area of 11 square feet or less and an organic solvent loss of 3 gallons per day or less.	0	
39(ii)	Conveyorized degreasers with an air/vapor interface smaller than 22 square feet (2 square meters), unless subject to the requirements of 40 CFR 63 Subpart T.	0	
(iii)(36)	Open-top vapor degreasers with an open-top area smaller than 11 square feet (1.0 square meter), unless subject to the requirements in 40 CFR 63, Subpart T.	0	
	Miscellaneous		
(40)	Ventilating and exhaust systems for laboratory operations. This exemption does not include laboratory operations used to produce products for sale except in a de minimis manner.	0	
Version 7 - 7	-Sin		9

New York Air Permi	New York State Department of Environmental Conservation	NEWYORK Department of Singertment of Environmental	ient of nental ation
2 - 6 3 0		Date of Form	
Rule Citation 201-3.2(c)	Description	Number of Activities	Building Location
(41)	Exhaust or ventilating systems for the melting of gold, silver, platinum and other precious metals.	0	
(42)	Exhaust systems for paint mixing, transfer, filling or sampling and/or paint storage rooms or cabinets, provided the paints stored within these locations are stored in closed containers when not in use.	0	
(43)	Exhaust systems for solvent transfer, filling or sampling, and/or solvent storage rooms provided the solvents are stored in closed containers when not in use.	0	
(44)	Reserved		
(45)	The application of odor counteractants and/or neutralizers.	0	
(46)	Hydrogen, natural gas, and methane fuel cells.	0	
(47)	Dry cleaning equipment that uses only water-based cleaning processes or those using liquid carbon dioxide.	0	
(48)	Manure spreading, handling and storage at farms and agricultural facilities.	0	
(49)	Covered manure storage at farms that exhausts to a flare or other appropriate emission control device. This activity does not include anaerobic digestion processes operating with or without stationary or portable combustion installations.	ot 0	
(50)	Coffee roasting processes which have a maximum operating capacity of 3 kilograms or less of green coffee beans per batch and no greater than 25 tons of green coffee beans per year, that are vented through an unobstructed, vertical stack that ensures proper dispersion of air contaminants.	0	
(51)	Process emission sources at breweries with total combined beer and/or malt liquor production of 60,000 barrels per year or less.	сг 0	
(52)	Process emission sources at wineries with total combined wine and/or brandy production of 700,000 gallons per year or less	ss. 0	
(53)	Process emission sources at distilleries with 10,000 distiller's bushels of grain input per year or less.	0	
(54)	Process emission sources at wood and lumber drying kilns with an annual throughput of untreated wood of 275,000 board feet or less.	0	

<sup>~</sup> 

Attachment 4

## Queens Fresh Meadows Facility ID# 2-6306-00071/00003

Methods Used to Determine Compliance

			Methods Used to Determine	Compliance	
DEC					
2-0.50	6-00071		Description of Requirement	Method used to determine Compliance	
Condition Number	Applicable Requirement	Permit Level			Compliance Status, Continuos/ Intermittent?
	6NYCRR 200.6	Federally Enforceable	Acceptable Ambient Air Quality.	No air contaminate is emitted in quantities which contravene applicable air quality standards.	Continuous
2	6NYCRR 201-	Federally Enforceable	Permittee shall pay the required fees associated with this permit.	Applicable fees have been paid.	Continuous
3	6.4(a)(7) 6NYCRR	Federally Enforceable	Recordkeeping and reporting of compliance monitoring	Submittal of required monitoring reports to regulatory authorities.	Continuous
4	201-6.4(c) 6NYCRR 201-6.4(c) (2)	Enforceable Enforceable	Monitoring, related recordkeeping, and reporting requirements.	Compliance monitoring and recordkeeping shall be conducted in accordance with this permit. Records shall be maintained for at least 5 years.	Continuous
5	6NYCRR 201-6.4(c) (3)(ii)	Federally Enforceable	Submit required monitoring reports at least every 6 months, results of required testing, statement that "upon request" monitoring was conducted.	Filing of required reports, test results and statement that "upon request" monitoring was conducted. Due 30 days after report period.	Continuous
6	6NYCRR 201-6.4(e)	Federally Enforceable	Submit Annual Compliance Report listing terms and condition of permit and compliance status.	Filing of Annual Compliance report.	Continuous
7	6NYCRR	Federally	Emission Statement shall be submitted on or before April 15 of each year	File Annual Fuel Use Report. Due April 15 <sup>th</sup> for previous calendar year.	Continuous
8	202-2.1 6NYCRR 202-2.5	Enforceable Federally Enforceable	Recordkeeping Requirements	Each facility shall maintain for at least five years a copy of each emission statement, records indicating how the information was determined and calculated.	Continuous
9	6NYCRR 215.2	General Permittee Obligation	Open Fires	No open burning of garbage, rubbish for salvage, or rubbish generated by industrial or commercial activities shall be conducted at this facility.	Continuous
10	6NYCRR 200.7	Federally Enforceable	Maintenance of Equipment	Emission control devices at this facility are operated and maintained in accordance with ordinary and necessary practices, standards and procedures.	Continuous
11	6NYCRR 201-1.7	Federally Enforceable	Recycling and Salvage	When practical, collected air contaminants shall be recycled or salvaged.	Continuou
12	6NYCRR 201-1.8	Federally Enforceable	Prohibition of Reintroduction of Collected Contaminants to the Air	No person has unnecessarily removed, handled, or caused to be handled, collected air contaminants in a manner that would reintroduce them to the atmosphere.	Continuou
13	6NYCRR 201-3.2(a)	Federally Enforceable	Proof of Eligibility as an exempt source	This facility is operated within the criteria of 6NYCRR 201-3 and the terms of this Condition.	Continuou
14	6NYCRR 201-3.3(a)	Federally Enforceable	Proof of Eligibility as a trivial source	This facility is operated within the criteria of 6NYCRR 201-3 and the terms of this Condition,	Continuou
15	6NYCRR 201- 6.4(a)(4)	Federally Enforceable	Providing Information Upon Request	Any information about this facility requested by the Department shall be provided within a reasonable time.	Continuou

DEC	D		Methods Used to Determine	Compilance	
	6-00071		Description of Requirement	Method used to determine Compliance	
Condition Number	Applicable Requirement	Permit Level	Description of Requirement		Compliance Status, Continuos/ Internittent?
16	6NYCRR 201- 6.4(a)(8)	Federally Enforceable	Right To Inspect	The Permittee acknowledges the right of a Department representative to conduct an inspection of this facility under the terms of this Condition.	Continuous
17	6NYCRR 201- 6.4(f)(6)	Federally Enforceable	Off Permit Changes	No permit revision is required for operating changes that contravene an express permit term, provided such changes do not violate applicable requirements under this part and the Department is notified within a minimum of 7 days prior to the operational change.	Continuous
18	6NYCRR 202-1.1	Federally Enforceable	Required Emission Tests	Required emission tests are conducted and reports submitted in accordance with permit requirements.	Continuous
19	40 CFR Part 68	Federally Enforceable	Accidental release provisions	This facility does not use or store listed chemicals under this regulation above threshold levels. General Duty Clause requirements are included in the facilities SPCC Plan.	Continuous
20	40 CFR 82, Subpart F	Federally Enforceable	Recycling and Emissions Reductions	The Permittee is in compliance with the standards for recycling and emissions reductions for stratospheric ozone depleting chemicals.	Continuous
21	6NYCRR 201-6	Federally Enforceable	Emission Unit Definition	This is an accurate description of the emission units at this facility.	Continuous
22	6NYCRR 201- 6.4(d)(5)	Federally Enforceable	Compliance Requirements. Progress Reports	Progress reports consistent with an applicable schedule of compliance shall be submitted semi-annually or more frequently if requested.	Continuous
23	6NYCRR 202-1.2	Federally Enforceable	Notification	Permittee with notify the Department at least 30 days prior to any stack testing	Continuous
24	202-1.2 6NYCRR 202-1.3	Federally Enforceable	Acceptable Procedures	Permittee will conduct stack testing is accordance with test procedures approved by the Department	Continuous
25	6NYCRR 211.2	State Only Enforceable	Air Pollution Prohibited	This facility has not caused or allowed emission of air contaminants which unreasonable interfere with the comfortable enjoyment of life or property.	Continuous
26	6NYCRR 201-6	Federally Enforceable	Emission Point Definition by Emission Unit	This is an accurate definition of each emissions unit	Continuou
27	6NYCRR 201-6	Federally Enforceable	Emission Process definition by Emission Unit	This is an accurate definition of each emission process	Continuous
28	6NYCRR 227-1.6(b)	Federally Enforceable	Corrective Action	If the facility is found to be in violation of the provisions of this part, corrective actions shall be taken in accordance with this regulatory citation.	Continuous

-----

DEC 2-630	ID 6-00071		Methods Used to Determine		
Condition. Number	Applicable Requirement	Permít Level	Description of Requirement	Method used to determine Compliance	Compliance Status, Continuos' Intermittent?
29	6NYCRR 227-1.6(c)	Federally Enforceable	Corrective Action	If corrective action is not taken in accordance with the directions of the Commissioner the Department may take actions to prevent operation of the facility.	Continuous
30	6NYCRR 227-1.6(d)	Federally Enforceable	Corrective Action	Sources sealed by the Commissioner will not be operated.	Continuous
31	6NYCRR 227-2.4(d)	Federally Enforceable	Compliance Certification	Filing of compliance report. Annual boiler tune-ups are performed and recorded in accordance with the requirements of this regulatory citation.	Continuous
32	6 NYCRR 227.2(b) (1)	Federally Enforceable	Conduct stack sampling for particulates once during the term of the permit. Not to exceed 0.1 lb/nmBtu.	Conduct stack sampling once during the term of the permit. Stack sampling not due or conducted this reporting period.	Continuous
33	40 CFR 60.9, NSPS Subpart A	Federally Enforceable	Availability of Information	The Permittee understands that the Administrator may provide information about this facility to the public upon request.	Continuous
34	40 CFR 60.9.14, NSPS Subpart A	Federally Enforceable	Modifications	Within 180 days of any physical or operational change to this facility compliance with applicable standards must be achieved.	Continuous
35	40 CFR 60.9.15, NSPS Subpart A	Federally Enforceable	Reconstruction	As least 60 days prior to reconstruction the Permittee shall notify the Administrator of the proposed actions and provide the information requested in this regulatory citation.	Continuous
36	40 CFR 60.42c(d) NSPS Dc	Federally Enforceable	Fuel sulfur content shall not exceed 0.5% by weight. [This limit superseded by another condition limiting sulfur to 0.2% by weight.]	All fuels are purchased on specification.	Continuous
37	40 CFR 60.42c(H) NSPS `Dc	Federally Enforceable	Compliance Certification	Compliance shall be based on a certification from the fuel supplier.	Continuous
38	40 CFR 60.48c(e) (2) NSPS De	Federally Enforceable	Compliance Certification	Upon request of the Regulatory Agency, documentation the 30 average SO2 emission rate shall be provided to the Department.	Continuous
39	40 CFR 60.48c(e) (9) NSPS De	Federally Enforceable	Compliance Certification	Upon request of the Regulatory Agency, documentation the SO2 emissions shall be provided to the Department.	Continuous
40	40 CFR 60.48c(i) NSPS De	Federally Enforceable	All records required by this permit shall be retained for a minimum of 2 years.	Recordkeeping. Required records are maintained on site for the required duration.	Continuous
41	6 NYCRR 227-1.3	Federally Enforceable	Opacity shall not exceed 20% except for 1 six-minute period per hour not to exceed 27%.	Observe stack daily to very that no visible plume is visible. If plume is visible for two consecutive days conduct Method 9 reading within 48 hours and report to the RAPCE.	Continuou:

	Methods Used to Determine Compliance						
DEC 2-630	ID 6-00071						
Condition Number	Applicable Requírement	Permit Level	Description of Requirement	Method used to determine Compliance	Compliance Status, Continuos/ Intermittent?		
A	6NYCRR 201-5	State Only Enforceable	General Provisions, Terms and Conditions Owner shall operate facility in accordance with regulatory requirements.	All required records are maintained on-site for a period of 5 years.	Continuous		
В	6NYCRR 201-5	State Only Enforceable	General Provisions, Terms and Conditions Owner shall operate facility in accordance with regulatory requirements.	All required records are maintained on-site for a period of 5 years.	Continuous		
42	ECL 19- 0301	State Only Enforceable	Contaminant List	This facility is operated in accordance with contaminant specific requirements for particulates and sulfur dioxide.	Continuous		
43	6NYCRR 201-1.4	State Only Enforceable	Unavoidable Noncompliance and violations	When a violation of an applicable emission standard due to scheduled maintenance, start-up/shutdown or malfunctions or upsets at this facility has occurred the procedures set forth in this Condition are followed.	Contínuous		