MILLSTONE NUCLEAR POWER STATION UNIT 3

TEMPORARY USE OF ATLAS COPCO DIESEL COMPRESSOR #PTMS900

AT

MILLSTONE NUCLEAR POWER STATION UNIT 3
MAINTENANCE OF SERVICE AIR SYSTEM

CRITERIA POLLUTANT
EMISSION CALCULATIONS

Corporate and Environmental Affairs Division Northeast Utilities Service Company

May 1997

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Assumptions Used in Emission Calculations

Millstone Unit 3 Diesel Compressor Detroit Diesel Compressor Model PTMS 900

All emission factors used are as supplied by engine manufacturer.

2. Fuel sulfur content - Not to exceed 0.05%

Fuel consumption rate - 15.7 gallons per hour (gph)

4. Fuel heat value - 140,000 BTUs per gallon

5. Particulate emission rate (0.07 pounds/hour) meets the regulatory limit of 0.1 lb/10⁶ BTU

(0.07 pounds/hour) (1 hour/15.7 gallons) (gallon/140,000 BTU) = 0.032 lb/106 BTU

Factors Used to Calculate Emissions

Millstone Unit 3 Diesel Compressor Detroit Diesel Compressor Model PTMS 900

Pollutant	Pounds/Hour
Particulates	0.07
NO _x	3.43
co	0.21
SO ₂	0.12*
voc	0.16

Burning 0.05% sulfur fuel

Potential Emissions

Millstone Unit 3 Diesel Compressor Detroit Diesel Compressor Model PTMS 900

Based on operation at full load for 8760 hours per year

Pollutant	Pounds/Hour	Tons/yr*
Particulates	0.07	0.31
NOx	3.43	15.02
со	0.21	0.92
SO ₂	0.12	0.53
voc	0.16	0.70

⁽pounds/hour) (tons/2000 pounds) (8760 hours/year)

Actual Emissions

Millstone Unit 3 Diesel Compressor Detroit Diesel Compressor Model PTMS 900

Based on operation at full load for 240 hours per year

Pollutant	Pounds/Hour	Tons/yr*
Particulates	0.07	0.008
NO _x	3.43	0.412
со	0.21	0.025
SO ₂	0.12	0.014
voc	0.16	0.019

(pounds/hour) (tons/2000 pounds) (hours/year)

HAZARDOUS AIR POLLUTANT ANALYSIS

TEMPORARY USE OF ATLAS COPCO DIESEL COMPRESSOR #PTMS900

AT

Hazardous Air Pollutant Analysis

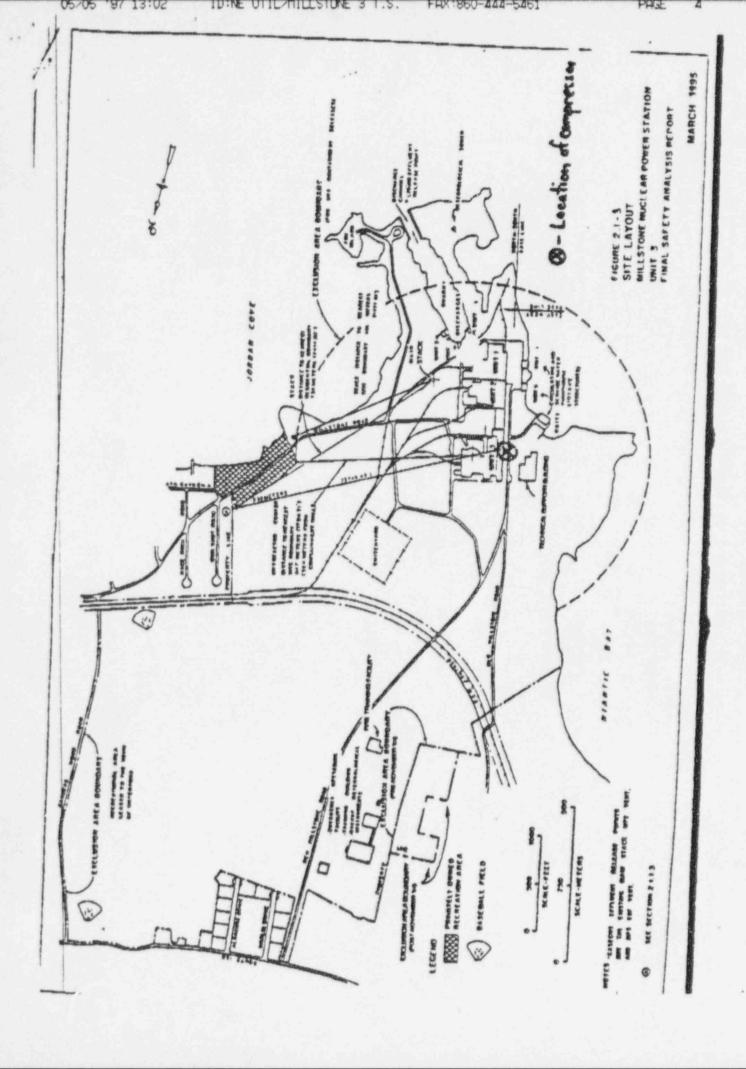
Millstone Unit 3 Diesel Compressor Detroit Diesel Compressor Model PTMS 900

- 1. The analysis is conducted for emissions of sulfuric acid.
- Sulfuric acid emission factor previous applications
 2.45S lbs/1000 gallons obtained from DEP staff for similar previous applications
- Hazard Limiting Value (HLV) from Sec. 22a-174-29 of Connecticut Regulations for sulfuric acid: 20 ug/m³
- 4. Stack flow rate (V): 2140 ft³/min 2140 ft³/min (m³/35.31 ft³) (min/60 sec) = 1.010 m³/sec
- 5. Stack height (H): 2.5 meters
- 6. Fuel sulfur content: Not to exceed 0.05%
- 7. Fuel consumption rate: 15.7 gallons/hour (15.7 gallons/hour) (hour/3600 sec) = 0.004 gallons/sec
- 8. Distance to the closest property boundary (X): 152.4 meters
- Since the discharge point is less than 20 meters measured vertically, the following MASC equation was used:

MASC = $[0.885(HLV)(X + 1.08*V^{0.64})^{1.56}]/V = 45,074ug/m³$

10. ASC = [2.45 (0.5) lbs/1000 gal]*(0.0071 gal/sec)* (454 grams/lb)/1.62 m³/sec = 220 ug/m³





APPLICANT COMPLIANCE INFORMATION

TEMPORARY USE OF ATLAS COPCO DIESEL COMPRESSOR #PTMS900

AT



Applicant Compliance Information

App. No.	6.5	P USE	ON	LY	14	4	3.1	
Co.And.		74		- ; ;		1	7	
	T.	Gue	*					,

as inc	dicated on the Permit Application Transmittel Form)
If you the re	enswer yes to any the questions below, you must complete the Table of Enforcement Actions on verse side of this sheet as directed in the instructions for your permit application.
Α.	During the five years immediately preceding submission of this application, has the applicant been convicted in any jurisdiction of a criminal violation of any environmental law?
	☐ Yes ☑ No
В.	During the five years immediately preceding submission of this application, has a civil penalty been imposed upon the applicant in any state, including Connecticut, or federal judicial proceeding for any violation of an environmental law?
	□ Yes X□ No
c.	During the five years immediately preceding submission of this application, has a civil penalty exceeding five thousand dollars been imposed on the applicant in any state, including Connecticut, or federal administrative proceeding for any violation of an environmental law?
	¥∄ Yes □ No
D.	During the five years immediately preceding submission of this application, has any state, including Connecticut, or federal court issued any order or entered any judgement to the applicant concerning a violation of any environmental law?
	□ Yes □ No
E.	During the five years immediately preceding submission of this application, has any state, including Connecticut, or federal administrative agency issued any order to the applicant concerning a violation of any environmental law?
	x□ Yes * □ No
	* Notice Of Violations Only

Table of Enforcement Actions

Type of Action	Date	(3) Jurisdiction	Case/Docket; Number	Pescription of Violation of
See Attached				

Copies of this form may be duplicated for additional space. Please enter a check mark if additional sheets are attached.

Millstone Nuclear Power Station

	2
1	a.
F.	Appl

Subject, Letter, Date	Notice of Violation, Hazardous Waste, NOV No. HM-441, February 11, 1992, C04495
Issuing Agency and Branch	DEP, Bureau of Waste Management
Agency Contact	Robin W. Bray
Issue	As the result of a hazardous waste inspection on June 18, 1991, the DEP issued the NOV for four areas:
	 Failure to conduct hazardous waste determinations on various paints. Failure to close one 5-gallon container of waste paint. Failure to properly label one 5-gallon container of waste paint. Failure to address secondary containment tank in closure plan.
Response Letter and Date	J F Opeka to R W Bray, April 10, 1992, D05468
Response/Resolution	NNECO responded as Prior to the time of the audit, NNECO personnel were collecting information (MSDS and analyses) on various points used at the site. Analyses were submitted. The 5-gallon container has been eliminated The 5-gallon container has been eliminated. Also, all satellite containers are properly labeled. NNECO contended that the secondary containment tank was addressed in the closure plan though in an indirect manner. An amendment to the closure plan was issued to better discuss the tank.
Response Letter and Date	R W Bray to J. F. Opeka, May 20, 1992, C04632
Response/Resolution	DEP requested information on the training of employees to properly identify and dispose of hazardous waste paint. Also, greater detail is required on the cleaning procedure for the secondary containment tank.
Response Letter and Date	W. D. Romberg to R. W. Bray, January 13, 1993, D06106
Response/Resolution	Responded to NOV HM-441. The training of personnel and the Training Manual were reviewed. Most of the painting and residual materials are turned over to painting contractors. If any additional questions are raised by either the paint contractor or station personnel on waste paint disposal, the station's Environmental Coordinator is contacted. A revision was made to the Appendix to the Millstone Nuclear Power Station Container Storage Area Closure Plan that included a new section on cleaning the sump tank for the container storage area.

Millstone Nuclear Power Station (Continued)

2.

Subject, Letter, Date	Consent Order, January 14, 1994, C05471
Issuing Agency and Branch	CT Department of Environmental Protection
Agency Contact	Timothy R E Keeney
Issue	Consent Order remove floating docks, finger piers and ramps that were installed without a permit or certificate. Civil penalty of \$18,000 for the violations
Response Letter and Date	D. M. Gilbane to C. Evens, January 26, 1994, D07294
Response/Resolution	NNECO paid the fine.

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Subject, Letter, Date	Notice of Violation, Hazardous Waste, NOV No. HM-684, September 19, 1994, C05860
Issuing Agency and Branch	DEP, Waste Management Bureau
Agency Contact	David A Nash
Issue	As a result of hazardous waste inspections on May 14, 24, and 27, 1994, the DEP issued the NOV for seven areas.
	* Inspection schedule and log for two locations, Environmental Laboratory and Building 2-44, were missing information (date and time of inspections, integrity evaluation, inspection of sump).
	* At least one employee had not received annual hazardous waste "Refresher" training
	* The facility hazardous waste contingency plan lacked descriptions and capabilities of spill and personnel protective equipment
	* The facility hazardous waste contingency plan did not include or did not properly reference the names, addresses, and telephone numbers of the emergency coordinators.
	* The facility hazardous waste closure plan indicated that three container areas would be closed under the plan (the actual number is six).
	* Six drums of hazardous waste had not been marked with the accumulation date.
	* Several hundred cubic feet of mixed waste had been stored for greater than one year
Response Letter and Date	D B Miller to R Q Bunnell, November 16, 1994, D08100
Response/Resolution	NNECO responded as:
	* The Environmental Lab Building is not used as a CSA, thus is not subject to the requirements of a CSA. The site will include an inspection of the Building 2-44 sump weekly with an updated inspection form
	* Training was scheduled within the accepted period of one calendar year plus 90 days for all employees.
	* The Hazardous Waste Contingency Plan will be revised by January 31, 1995.
	* List 650 is located in the Control Room and the Contingency Plan will be revised to reference this information.
	* The closure plan was corrected to indicate that six container storage areas will be closed.
	Missing accumulation dates were put in drums
	Millstone is in compliance with EPA policy regarding mixed-waste storage.

Northeast Nuclear Energy Company

DIRECTORS (Quorum - One-third of Directors)

. Robert G. Abair Cheryl W. Grisé John B. Keane

William T. Frain, Jr. Bruce D. Kenyon Hugh C. MacKenzie

Bernard M. Fox

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John H. Forsgren

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Robert P. Wax Michael H. Brothers David M. Goebel

Barry Ilberman John B. Keane

Keith R. Marvin John J. Roman Frank C. Rothen Theresa H. Allsop O. Kay Comendul Robert C. Aronson David R. McHale

(Last Revision 2/3/97)

Last Updated: February 3, 1997 by: Kay Comendul at comenokanu.com

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PLANT INFORMATION

MILLSTONE 1 (BWR) aterford, Connectical

Someral Electric Compan Soneral Electric Compa Benera Saerdosm, Imc. levember 1978 becombar 1978 STBT.4 malifiers Turbane Generator Manufacta Decomprissioning Scheduled Commercial Operation Engineer/Constructor. Reactor Manualacturer Construction Permit Insthal Cost ined Load

to Beget

\$386 milition (12/R3 Duffort) sected Dacomenicsioning Cost.

Owmership:

Asytheasi Usanes.

	92 8 percent 69.9 percent	5,273,223 MWR 93,426,134 MWR 97,926,558 MWR	9.4 million barrels 165.7 million barrels
Perfermance Statistics	Capacity Factor (1993): (1970-1993):	Net Generation (1993): (1970-1993): Total Gross Generation:	Oil Equivalent (1993): (1970-1993):

have scheduled refueling, February 1994

biblishens I shell down for a scheduled 71-day infinifing on Jamesey 15,1994. Bs 1993 Capacity backs: was the sociand highest at its 23-year leadony, and the highest of any General Electric Biblit in the world.

MILLSTONE 2 (PWR) Materiord, Connecticut

Constantion Engineering, Inc. \$319 millen (12/63 Bellers) Semeral Electric Company lectital Carporation December 1975 tecember 1978 424.4 million **1675** Projected Decommissioning Cost. Luchum Generator Manufactus Decommissioning Scheduled Commercial Operation; rgeneer/Constructor. Reactor Manustacturer Construction Permit Design Rathrig to Began metral Cost und Load

Ownership:

188 percent Mortheast Utahins:

	82.5 percent 63.6 percent	6.295,912 MWh 87,246,788 MWh 90,951,969 MWh	11.2 million barrets 154 8 million barrets
Purfernance Mattatics	Capacity Factor (1993): (1975-1993):	Net Generation (1993); (1975-1993); Total Gross Generation:	Ok Equivalent (1993):

hast extrasticians returning July 1994

Methodore 2 returned from a rethabling and obsern generator replacement entage on Jamusary 13, 1953. The outlage began on May 29, 1992. On Magneti 5, the plant was shad down doe to a loaking valve in a historie encli liter on a system that is attached to the reactor conduct system. As a vasual of this result, the plant was fined \$237,500.

MILLSTONE 3 (PWIT)

Valenford, Connecticut

stinghouse Electric Corpor Seasoral Electric Company Stone & Webster Engineering purit 1986 urbine Generator Mare Commercial Operation regardent/Constructor. tactor Manustactorer Constructors Permit and Load

Decoramissioning Schedule reital Cost (Appromismate)

\$3.77 billions

ujected Decommissioning Cost. \$ 621.5 million (15/97) (saidon)

Ownserships:

52 9330 12,2385 2.8475 4.0090 3.5856 1,7303 1,3500 061089 12 2050 03200 Central Vermons Public Service Corporation fermoni Electric Generation and Consmictación Maunicipal Electric Transmission Cooperative. ASSACPASSERS Managail WA Checropee, Massachuseffs Central Manne Prener see England Power TOTAL - ME unitang Electric. The Unsteed Mustre WARECO

Performance Statistics

02170

Factobarg Gas and Electric Light.

\$1,466,605 MMM \$4,167,645 MMM5 6.479,338 MMM 65.0 percent Capacity Factor (1990): (1986-1993) Met Generation (1993): (1986-1993): Total Gross Generation

nd scheduled reheating: May 1995

11.5 methon bbt 91.3 methon bbt

Oil Equinations (1993): (1986-1993):

Militarion 3 shull down for scheduled refamiling on July 31. Due to ensuring-schol mannhanzers, enclocing replacement of the plant's four reachs contant periops, the estage was extended, and the plant returned to service on brownings?

PREMISE NON-ATTAINMENT POLLUTANT SUMMARY

TEMPORARY USE OF ATLAS COPCO DIESEL COMPRESSOR #PTMS900

AT

Premise Non-attainment Pollutant Summary

If the premise on which the source seeking a permit is to be located on is, or will be a major stationary source as defined in Section 22a-174-1 of the Regulations of Connecticut State Agencies, the applicant shall supply the following information:

 List any potential emissions increases of NO, and VOC (TPY) from unpermitted emission units constructed at the premise since January 1, 1991. Potential emissions are based on 8760 hours of operation per year before the application of control equipment.

		Potential Em	issions (TPY)
Emission Unit ID Number and Description	Construction Date	NO _x	voc
	and the Control of th		

2) List any potential emissions increases of NO_x and VOC (TPY) from permitted emission units constructed at the premise since January 1, 1991. Potential emissions are the emissions allowed after federally enforceable permit limits have been applied.

Northeast Nuclear Energy Company Millstone Unit 3				Permitted Emissions (TPY)	
Emission Unit ID Number and Description	Construction Date	Permit No.	Permit Type(s) (CP/OP)	NO _x	voc
Emergency Diesel		199-0017	CP/OP	4.95	0.23
Gen #645F4B					
Emergency Diesel	36.				
Gen #1750KW		199-0031	CP/OP	4.98	0.341

PERMIT APPLICATION TRANSMITTAL FORM

TEMPORARY USE OF ATLAS COPCO DIESEL COMPRESSOR #PTMS900

AT



STATE OF CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION Central Permit Processing Unit 79 Elm Street Hartford, CT 06106-5127

Permit Application Transmittal Form

Please complete this transmittal form in accordance with the instructions in order to ensure the proper handling of your application(s) and the associated fee(s). Print legibly or type.

Part I: Applicant Information

	DEP USE DNLY
Docum	rent No.
Rec'd	CPPU
Rec'd	Program

Applicant:Compa Title (N	ny Name or, if applie fr, Ms, Dr) First N P.O. Box 2	ame	vidual, write name in t Middle Initial	the following format: Last Name	Suffix (Jr, PE, PhD)
Haming Address.	artford		State: CT	Zip Code: .	06141	0270
Phone: (860)	665-5000	ex	State: CT	Fax: ()		
mone.	Paul Jacobs	on	Phone: 860	447-1791		ext : 2335
_ Check it any	co-applicants.	II SO' BITTOR	in additional arres	tisi with the requ	med milomi	ation as
supplied abo	ove.) (check one): D	individua	company		□ state	□ municipa
supplied about the supplicant is a (n) of a Company, li	ove.) (check one): D ist company type	individua e (e.g., corr	company	□ federal	□ state	□ municipa

Part II: Project Information

Brief Project Description: Mi Temporary use of c	ompressor for	service air	system		
Location (City/Town): W Other Project Permits (not in	aterford	orm):	N/A		
Permit Description	Authority	Submittel Date	Issuance Date	Denial Date	Permit #

Part III: Individual Permit Application and Fee Information

N, M, RV,	Individual Permit Applica	tions	Initial Fees	No.of Apps.	Total Initial Fees	Original + Required Copies	
	AIR EMISSIONS						
	New Source Review		\$100.00		and the state of t	1+0	
	Title V Operating Permits		none			1 + 0	
	WATER DISCHARGES					JESSES ST	
	To Groundwater	A 2020 COMMUNICATION CONTROL OF THE PROPERTY O	\$700.00			1 + 2	
	To Surface Water (NPDES)	7. August 10 Company Company (Company Company	\$700.00			1 + 2	
	To Sanitary Sewer (POTW)		\$700.00			1 + 1	
	INLAND WATER RESOURCES						
	Inland Wetlands and Watero	ourses	none				
	Streem Channel Encroachm	ent Lines	*			1 + 5	
-	Inland 401 Water Quality Co	ertification	none				
	Weter Diversion	THE RESERVE AND A SECOND CONTRACTOR OF THE PARTY OF THE P	*			1 + 7	
			none		A THE RESIDENCE OF THE PARTY OF	1 + 2	
	Dam Construction	Along the second se	none			1+1	
	Flood Management Certifica		none				
-	OFFICE OF LONG ISLAND SO		\$350.00			1 + 7	
	Printed Services to commercial appropriate printed and	larine Mining / Tidal Wetlands	none		**	1 + 7	
	Coastal 401 Water Quality	Certification	\$200.00		The second secon	1 + 2	
	Certificate of Permission		1	our MANY CONTRACTOR			
	WASTE MANAGEMENT		+		AND THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER, THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER, THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER, THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER, THE OWNER	1+0	
	Waste Transportation		*				
	Solid Waste Facilities		*			1 + 2	
	RCRA Closure Plan		\$2500.00			1+0	
	RCRA Post Closure		\$2500.00			1 + 0	
	Section 22a-454 CGS Was	te Facilities	*			1 + 1	
	Hazerdous Waste Treatmen	t, Storage and Disposal Facilities	*			1 + 1	
	Aquatic Pesticide Applicati		\$ 25.00			1 + 0	
or the second (C. d. of	Agnal Pesticide Application		*			1 + 2	
	ACCOUNT OF THE PARTY OF THE PAR		\$125.00	1		1 + 0	
	Marine Terminal License	CHARLES BEING THE PARTY OF THE	Subtotal =				
		GENERAL PERMITS and AUTH Enter totals from Part IV, page 3	ORIZATIONS	1	\$ 500	1	
			TOTAL →	1	\$ 500		
			Scable Discoun	t mp			
		AMOUNT REMITTED → \$ 500					

^{*} See fee schedule on individual application.

* Part IV: General Permit Registrations and Requests for Other Authorizations
Application and Fee Information

/	General Permits and Other Authorizations	Initial Feas	# of Apps.	Total Initial Fees	Original - Required Copies
E. HUIS	AIR EMISSIONS			Albert State State State	2.78) (
	Esnargency Authorization	**	1	\$ 500.00	1+0
	Temporary Authorization	**		THE REAL PROPERTY AND ADDRESS OF THE PARTY O	1 + 0
	WATER DISCHARGES				
	Car Wash Wastewater	\$437.50			1+0
	Domestic Sewage	\$250.00			1 + 0
	Groundwater Contamination Recovery System	\$2637.50		CONTRACT AND CONTRACT	1+0
	Hydrostatic Pressure Testing (Natural Gas Pipelines)	\$500.00		THE PERSON OF THE PERSON NAMED IN COLUMN OF THE PERSON OF	1 + 1
	Hydrostatic Pressure Testing	\$250.00		THE RESIDENCE OF THE PARTY OF T	1 + 0
one or a	Minor Non-Contact Cooling Water	\$500.00			1 + 1
	Minor Photographic Processing	\$ 50.00			1 + 0
Normal	Minor Printing & Publishing Wastewater	\$250.00			1 + 0
	Minor Tumbling or Cleaning of Parts Wastewater	\$500.00			1 + 1
MARKET	Stormwater Associated with Commercial Activities	\$250.00			1 + 0
arone.	Stormwater Associated with Industrial Activities	\$250.00			1 + 0
_	Stormwater & Dewatering Wastewaters-Construction Activities	\$250.00			1 + 0
-	Vehicle Service Floor Drain Wastewater	\$ 50.00			1 + 0
_	Water Treatment Wastewater	\$250.00			1 + 0
Note Survey	Emergency Authorization - Discharge to POTW	\$250.00			1 + 0
-	Emergency Authorization - Discharge to Surface Water	\$500.00			1 + (
-	Temporary Authorization - Discharge to POTW	\$250.00			1 + 0
	Temporary Authorization - Discharge to Surface Water	\$500.00			1 + (
	INLAND WATER RESOURCES			DESTABLISHED	
Ontsura	Emergency Authorization	**			**
-	Temporary Authorization	**			**
-	OFFICE OF LONG ISLAND SOUND PROGRAMS				
stánno	Emergency Authorization	**			1 + 0
-	Temporary Authorization	**	ALATA KAL		1 + 0
	WASTE MANAGEMENT				
	Asbestos Disposal Authorization	\$200.00			1 + 1
*****	Drop-site Recycling Facility	\$100.00			1 +
-	Limited Processing Recycling Facility	\$250.00			1 +
OCH PROPERTY.	Recyclables Transfer Facility	\$250.00			1 +
-	Single item Recycling Facility	\$250.00			1 +
	Special Waste Authorization	\$100.00			1+
-	Emergency Authorization	**		27177	
_	Temporary Authorization	**			
-	New Unlisted General Permit				
-		TOTAL →	1	\$ 500.00	

^{**} Contact the specific permit program for this information