

SCH-14-003
CERTIFIED MAIL
RETURN RECEIPT REQUESTED
ARTICLE NUMBER: 7012 1640 0000 4257 0267

JAN 24 2014



Department of Environmental Protection
Division of Water Quality
Bureau of Permit Management
P.O. Box 029
Trenton, N.J. 08625-0029

**NEW JERSEY POLLUTANT DISCHARGE ELIMINATION SYSTEM
DISCHARGE MONITORING REPORT
SALEM GENERATING STATION
NJPDES PERMIT NJ0005622**

Dear Sir:

Attached is the Discharge Monitoring Report for the Salem Generating Station for the month of December 2013.

This report is required by and prepared specifically for the New Jersey Department of Environmental Protection (NJDEP). It presents only the observed results of measurements and analyses required to be performed by the above agencies. The choice of the measurement devices and analytical methods are controlled by the EPA and the NJDEP, not by the company, and there are limitations on the accuracy of such measurement devices and analytical techniques even when used and maintained as required. Accordingly, this report is not intended as an assertion that any instrument has measured, or that any reading or analytical result represents the true value with absolute accuracy, nor is it an endorsement of the suitability of any analytical or measurement procedure.

If you have any questions concerning this report, please feel free to contact Mark Pyle (856) 339-2331.

Sincerely,


John F. Perry
Site Vice President - Salem

Attachment (12 DMR's)

C Executive Director, DRBC
USNRC - Docket numbers 50-272 & 50-311

EXPLANATION OF CONDITIONS

Dec 2013

The following explanations are included to clarify possible deviation from permit conditions.

General - The columns labeled "No. Ex" on the enclosed DMR tabulate the number of daily discharge values outside the indicated limits.

Data reporting and accuracy reflect the working environment, the design capabilities and reliability of the monitoring instruments and operating equipment.

Deviations from required sampling, analysis monitoring and reporting methods and periodicities are noted on the respective transmittal sheet.

Results reported on the Discharge Monitoring Report forms are consistent with permit limits, data supplied from contract laboratories, the December 2007 revision of the NJDEP DMR Instruction Manual and specific guidance from DEP personnel.

ATTACHMENT:

Determination of circulating water flow at Salem Generating Station Unit 1

EXPLANATION OF EXCEEDANCES

December 2013

The following exceedance(s) are included in the attached report and explained below.

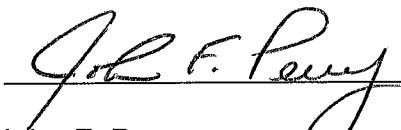
EXPLANATION

No Exceedances

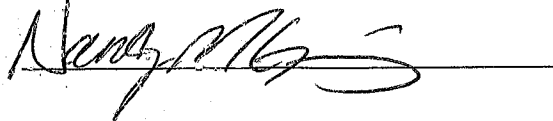
COUNTY OF SALEM
STATE OF NEW JERSEY

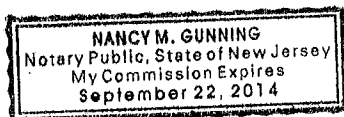
I, John F. Perry, of full age, being duly sworn according to law, upon my oath depose and say:

1. I am the Site Vice President – Salem for PSEG Nuclear, and as such am authorized to sign Salem's Discharge Monitoring Reports submitted to the New Jersey Department of Environmental Protection pursuant to the Station's New Jersey Pollutant Discharge Elimination System permit.
2. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.
3. The signature on the attached Discharge Monitoring Reports is my signature and I am submitting this affidavit in satisfaction of the requirement that my signature be notarized.


John F. Perry
Site Vice President – Salem

Sworn and subscribed before me
this 24th day of January 2014





New Jersey Department of Environmental Protection
Division of Water Quality

Surface Water Discharge Monitoring Report Submittal Form

NJPDES PERMIT	MONITORING PERIOD				MONITORED LOCATION:	
NJ0005622	Month 12	Day 1	Year 2013	To Month 12 Day 31 Year 2013	FACA - SW Outfall FACA	

PERMITTEE:
PSEG NUCLEAR LLC
80 PARK PLAZA
NEWARK, NJ 07101

LOCATION OF ACTIVITY:
PSEG NUCLEAR LLC SALEM
GENERATING STATION
ALLOWAY CREEK NECK RD
HANCOCKS BRIDGE, NJ 08038

REPORT RECIPIENT:
PSEG NUCLEAR LLC
PO BOX 236/N21
HANCOCKS BRIDGE, NJ 08038

REGION / COUNTY: Southern / Salem County

CHECK IF APPLICABLE: ☐ No Discharge this Monitoring Period ☐ Monitoring Report Comments Attached

WHO MUST SIGN The highest ranking official having day-to-day managerial and operational responsibilities for the discharging facility shall sign the certification or, in his absence a person designated by that person. For a local agency, the highest ranking operator of the treatment works shall sign the certification. Where the highest ranking operator does not have the ability to authorize capital expenditures and hire personnel, a person having that responsibility or person designated by that person shall also sign the second certification at the bottom of this page. If the local agency has contracted with another entity to operate the treatment works, the highest-ranking official of the contracted entity shall sign the certification.

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John F. Perry, Site Vice President - Salem

N/A

NAME AND TITLE OF PRINCIPAL EXECUTIVE OFFICER, AUTHORIZED AGENT, OR *LICENSED OPERATOR GRADE AND REGISTRY NUMBER (IF APPLICABLE)

John F. Perry

1/23/2014 856-339-3463

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER, AUTHORIZED AGENT, OR *LICENSED OPERATOR DATE AREA CODE/PHONE NUMBER

**For a local agency where the highest-ranking operator does not have the ability to authorize capital expenditures and hire personnel, a person having that responsibility or person designated by that person shall sign the following certification:*

I certify under penalty of law and in accordance with N.J.S.A. 58:10A-6F(5) that I have reviewed the attached discharge monitoring reports.

N/A

N/A

N/A

N/A

NAME AND TITLE

SIGNATURE

DATE

AREA CODE/PHONE NUMBER

Surface Water Discharge Monitoring Report

PI 46814

PERMIT NUMBER: NJ0005622 MONITORED LOCATION: FACA SW Outfall FACA MONITORING PERIOD: 12/1/2013 TO 12/31/2013 FACILITY NAME: PSEG NUCLEAR LLC SALEM GENERATOR

PARAMETER		QUANTITY OR LOADING	UNITS	QUALITY OR CONCENTRATION	UNITS	NO. EX.	FREQ. OF ANALYSIS	SAMPLE TYPE
Temperature, oC 00010 G Raw Sew/Influent	SAMPLE MEASUREMENT	*****	*****	*****	*****	0	Continuous	CONTIN
	PERMIT REQUIREMENT	*****	*****	*****	*****		Continuous	CONTIN
	QL	*****	*****	*****	*****		Continuous	CONTIN
Temperature, oC 00010 1 Effluent Gross Value	SAMPLE MEASUREMENT	*****	*****	*****	*****	0	Continuous	CONTIN
	PERMIT REQUIREMENT	*****	*****	*****	*****		Continuous	CONTIN
	QL	*****	*****	*****	*****		Continuous	CONTIN
Temperature, oC 00010 2 Effluent Net Value	SAMPLE MEASUREMENT	*****	*****	*****	*****	0	1/Day	CALC TD
	PERMIT REQUIREMENT	*****	*****	*****	*****		1/Day	CALC TD
	QL	*****	*****	*****	*****		1/Day	CALC TD
Lab Certification # 99999 99 Lab	SAMPLE MEASUREMENT	17327	17451	*****	*****			
	PERMIT REQUIREMENT	REPORT Lab #	REPORT Lab #	*****	*****		Not Applicable	NOT AP
	QL	*****	*****	*****	*****			

Comments: If there are any questions in regards to the monitoring report form, please contact Susan Rosenwinkel of the BPSP - Region 2 at (609)292-4860 or via email at "srosenw@dep.state.nj.us".

Pre-Print Creation Date: 10/1/2013

New Jersey Department of Environmental Protection
Division of Water Quality

Surface Water Discharge Monitoring Report Submittal Form

NJPDES PERMIT	MONITORING PERIOD				MONITORED LOCATION:	
NJ0005622	Month 12	Day 1	Year 2013	To	Month 12	Day 31
						Year 2013
					FACB - SW Outfall FACB	

PERMITTEE:
PSEG NUCLEAR LLC
80 PARK PLAZA
NEWARK, NJ 07101

LOCATION OF ACTIVITY:
PSEG NUCLEAR LLC SALEM
GENERATING STATION
ALLOWAY CREEK NECK RD
HANCOCKS BRIDGE, NJ 08038

REPORT RECIPIENT:
PSEG NUCLEAR LLC
PO BOX 236/N21
HANCOCKS BRIDGE, NJ 08038

REGION / COUNTY: Southern / Salem County

CHECK IF APPLICABLE: ☐ No Discharge this Monitoring Period ☐ Monitoring Report Comments Attached

WHO MUST SIGN The highest ranking official having day-to-day managerial and operational responsibilities for the discharging facility shall sign the certification or, in his absence a person designated by that person. For a local agency, the highest ranking operator of the treatment works shall sign the certification. Where the highest ranking operator does not have the ability to authorize capital expenditures and hire personnel, a person having that responsibility or person designated by that person shall also sign the second certification at the bottom of this page. If the local agency has contracted with another entity to operate the treatment works, the highest-ranking official of the contracted entity shall sign the certification.

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John F. Perry, Site Vice President - Salem

N/A

NAME AND TITLE OF PRINCIPAL EXECUTIVE OFFICER, AUTHORIZED AGENT, OR *LICENSED OPERATOR GRADE AND REGISTRY NUMBER (IF APPLICABLE)

1/23/2014 856-339-3463

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER, AUTHORIZED AGENT, OR *LICENSED OPERATOR DATE AREA CODE/PHONE NUMBER

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I certify under penalty of law and in accordance with N.J.S.A. 58:10A-6F(5) that I have reviewed the attached discharge monitoring reports.

N/A

N/A

N/A

N/A

NAME AND TITLE

SIGNATURE

DATE

AREA CODE/PHONE NUMBER

Surface Water Discharge Monitoring Report

PI 46814

PERMIT NUMBER: NJ0005622 MONITORED LOCATION: FACB SW Outfall FACB MONITORING PERIOD: 12/1/2013 TO 12/31/2013 FACILITY NAME: PSEG NUCLEAR LLC SALEM GENERATOR

PARAMETER		QUANTITY OR LOADING	UNITS	QUALITY OR CONCENTRATION	UNITS	NO. EX.	FREQ. OF ANALYSIS	SAMPLE TYPE
Temperature, oC 00010 G Raw Sew/Influent	SAMPLE MEASUREMENT	*****	*****	*****	*****	0	Continuous	CONTIN
	PERMIT REQUIREMENT	*****	*****	*****	*****		Continuous	CONTIN
	QL	*****	*****	*****	*****		Continuous	CONTIN
Temperature, oC 00010 1 Effluent Gross Value	SAMPLE MEASUREMENT	*****	*****	*****	*****	0	Continuous	CONTIN
	PERMIT REQUIREMENT	*****	*****	*****	*****		Continuous	CONTIN
	QL	*****	*****	*****	*****		Continuous	CONTIN
Temperature, oC 00010 2 Effluent Net Value	SAMPLE MEASUREMENT	*****	*****	*****	*****	0	1/Day	CALC'D
	PERMIT REQUIREMENT	*****	*****	*****	*****		1/Day	CALC'D
	QL	*****	*****	*****	*****		1/Day	CALC'D
Lab Certification # 99999 99 Lab	SAMPLE MEASUREMENT	17327	17451	PA166	*****			
	PERMIT REQUIREMENT	*****	*****	*****	*****			
	QL	*****	*****	*****	*****			

Comments: If there are any questions in regards to the monitoring report form, please contact Susan Rosenwinkel of the BPSP - Region 2 at (609)292-4860 or via email at "srosenwi@dep.state.nj.us".

Pre-Print Creation Date: 10/1/2013

New Jersey Department of Environmental Protection
Division of Water Quality

Surface Water Discharge Monitoring Report Submittal Form

NJPDES PERMIT	MONITORING PERIOD				MONITORED LOCATION:	
NJ0005622	Month 12	Day 1	Year 2013	To	Month 12	Day 31
						Year 2013
					FACC – SW Outfall FACC	

PERMITTEE:
PSEG NUCLEAR LLC
80 PARK PLAZA
NEWARK, NJ 07101

LOCATION OF ACTIVITY:
PSEG NUCLEAR LLC SALEM
GENERATING STATION
ALLOWAY CREEK NECK RD
HANCOCKS BRIDGE, NJ 08038

REPORT RECIPIENT:
PSEG NUCLEAR LLC
PO BOX 236/N21
HANCOCKS BRIDGE, NJ 08038

REGION / COUNTY: Southern / Salem County

CHECK IF APPLICABLE: ☐ No Discharge this Monitoring Period ☐ Monitoring Report Comments Attached

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John F. Perry, Site Vice President - Salem

N/A

NAME AND TITLE OF PRINCIPAL EXECUTIVE OFFICER, AUTHORIZED AGENT, OR *LICENSED OPERATOR GRADE AND REGISTRY NUMBER (IF APPLICABLE)

1/23/2014 856-339-3463

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER, AUTHORIZED AGENT, OR *LICENSED OPERATOR DATE AREA CODE/PHONE NUMBER

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N/A

N/A

N/A

N/A

NAME AND TITLE

SIGNATURE

DATE

N/A


N/A

AREA CODE/PHONE NUMBER

Surface Water Discharge Monitoring Report

PI 46814

PERMIT NUMBER: NJ0005622 MONITORED LOCATION: FACC SW Outfall FACC MONITORING PERIOD: 12/1/2013 TO 12/31/2013 FACILITY NAME: PSEG NUCLEAR LLC SALEM GENERATOR

PARAMETER		QUANTITY OR LOADING	UNITS	QUALITY OR CONCENTRATION	UNITS	NO. EX.	FREQ. OF ANALYSIS	SAMPLE TYPE
Flow, In Conduit or Thru Treatment Plant 50050 G Raw Sew/Influent								
	SAMPLE MEASUREMENT	2740	2793					
	PERMIT REQUIREMENT	3024 01MOAV	REPORT 01DAMX	*****	*****	0	1/Day	CALCTD
Thermal Discharge Million BTUs per Hr 00015 2 Effluent Net Value	QL							
	SAMPLE MEASUREMENT	14326	14439					
	PERMIT REQUIREMENT	REPORT 01MOAV	30600 01DAMX	*****	*****	0	1/Day	CALCTD
Lab Certification # 99999 99 Lab	QL							
	SAMPLE MEASUREMENT	17327	17451					
	PERMIT REQUIREMENT	REPORT Lab #	REPORT Lab #	*****	*****		Not Applicable	NOT AP

Comments: If there are any questions in regards to the monitoring report form, please contact Susan Rosenwinkel of the BPSP - Region 2 at (609)292-4860 or via email at "srosenw@dep.state.nj.us".

Pre-Print Creation Date: 10/1/2013

New Jersey Department of Environmental Protection
Division of Water Quality

Surface Water Discharge Monitoring Report Submittal Form

NJPDES PERMIT	MONITORING PERIOD				MONITORED LOCATION:		
NJ0005622	Month 12	Day 1	Year 2013	To	Month 12	Day 31	Year 2013
					048C – SW Outfall 48C		

PERMITTEE:
PSEG NUCLEAR LLC
80 PARK PLAZA
NEWARK, NJ 07101

LOCATION OF ACTIVITY:
PSEG NUCLEAR LLC SALEM
GENERATING STATION
ALLOWAY CREEK NECK RD
HANCOCKS BRIDGE, NJ 08038

REPORT RECIPIENT:
PSEG NUCLEAR LLC
PO BOX 236/N21
HANCOCKS BRIDGE, NJ 08038

REGION / COUNTY: Southern / Salem County

CHECK IF APPLICABLE: ☐ No Discharge this Monitoring Period ☐ Monitoring Report Comments Attached

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John F. Perry, Site Vice President - Salem

NAME AND TITLE OF PRINCIPAL EXECUTIVE OFFICER, AUTHORIZED AGENT, OR *LICENSED OPERATOR GRADE AND REGISTRY NUMBER (IF APPLICABLE)

John F. Perry N/A 1/23/2014 856-339-3463

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER, AUTHORIZED AGENT, OR *LICENSED OPERATOR DATE AREA CODE/PHONE NUMBER

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I certify under penalty of law and in accordance with N.J.S.A. 58:10A-6F(5) that I have reviewed the attached discharge monitoring reports.

NAME AND TITLE N/A N/A N/A DATE DATE AREA CODE/PHONE NUMBER

Surface Water Discharge Monitoring Report

PI 46814

PERMIT NUMBER: NJ0005622 MONITORED LOCATION: 048C SW Outfall 48C MONITORING PERIOD: 12/1/2013 TO 12/31/2013 FACILITY NAME: PSEG NUCLEAR LLC SALEM GENERATING

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING	UNITS	QUALITY OR CONCENTRATION	UNITS	NO. EX.	FREQ. OF ANALYSIS	SAMPLE TYPE
Flow, In Conduit or Thru Treatment Plant 50050 1 Effluent Gross Value	SAMPLE MEASUREMENT	0.3473	0.6021	*****	*****	0	1/Day	CALCTD
	PERMIT REQUIREMENT	REPORT 01MOAV	REPORT 01DAMX	*****	*****			
	QL	*****	*****	*****	*****			
Solids, Total Suspended 00530 1 Effluent Gross Value	SAMPLE MEASUREMENT	*****	*****	*****	*****	0	2/Month	COMPOS
	PERMIT REQUIREMENT	*****	*****	*****	*****			
	QL	*****	*****	*****	*****			
Nitrogen, Ammonia Total (as N) 00610 1 Effluent Gross Value	SAMPLE MEASUREMENT	*****	*****	*****	*****	0	2/Month	COMPOS
	PERMIT REQUIREMENT	*****	*****	*****	*****			
	QL	*****	*****	*****	*****			
Petroleum Hydrocarbons 00551 1 Effluent Gross Value	SAMPLE MEASUREMENT	*****	*****	*****	*****	0	2/Month	GRA3
	PERMIT REQUIREMENT	*****	*****	*****	*****			
	QL	*****	*****	*****	*****			
Carbon, Tot Organic (TOC) 00680 1 Effluent Gross Value	SAMPLE MEASUREMENT	*****	*****	*****	*****	0	2/Month	COMPOS
	PERMIT REQUIREMENT	*****	*****	*****	*****			
	QL	*****	*****	*****	*****			
Lab Certification # 99999 99 Lab	SAMPLE MEASUREMENT	17327	17451	PA166	*****			
	PERMIT REQUIREMENT	REPORT Lab #	REPORT Lab #	REPORT Lab #	*****			
	QL	*****	*****	*****	*****			

Comments: If there are any questions in regards to the monitoring report form, please contact Susan Rosenwinkel of the BPSP - Region 2 at (609)292-4680 or via email at "srosenw@dep.state.nj.us".

Pre-Print Creation Date: 10/1/2013

New Jersey Department of Environmental Protection
Division of Water Quality

Surface Water Discharge Monitoring Report Submittal Form

NJPDES PERMIT	MONITORING PERIOD				MONITORED LOCATION:	
NJ0005622	Month 12	Day 1	Year 2013	To Month 12 Day 31 Year 2013	481A - SW Outfall 481A	

PERMITTEE:
PSEG NUCLEAR LLC
80 PARK PLAZA
NEWARK, NJ 07101

LOCATION OF ACTIVITY:
PSEG NUCLEAR LLC SALEM
GENERATING STATION
ALLOWAY CREEK NECK RD
HANCOCKS BRIDGE, NJ 08038

REPORT RECIPIENT:
PSEG NUCLEAR LLC
PO BOX 236/N21
HANCOCKS BRIDGE, NJ 08038

REGION / COUNTY: Southern / Salem County

CHECK IF APPLICABLE: ☐ No Discharge this Monitoring Period ☐ Monitoring Report Comments Attached

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John F. Perry, Site Vice President - Salem

N/A

NAME AND TITLE OF PRINCIPAL EXECUTIVE OFFICER, AUTHORIZED AGENT, OR *LICENSED OPERATOR GRADE AND REGISTRY NUMBER (IF APPLICABLE)

1/23/2014 856-339-3463

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER, AUTHORIZED AGENT, OR *LICENSED OPERATOR DATE AREA CODE/PHONE NUMBER

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N/A

N/A

N/A

N/A

NAME AND TITLE

SIGNATURE

DATE

AREA CODE/PHONE NUMBER

Surface Water Discharge Monitoring Report

PI 46814

PERMIT NUMBER: NJ0005622 MONITORED LOCATION: 481A SW Outfall 481A MONITORING PERIOD: 12/1/2013 TO 12/31/2013 FACILITY NAME: PSEG NUCLEAR LLC SALEM GENERATING

PARAMETER	QUANTITY OR LOADING		UNITS	QUALITY OR CONCENTRATION		UNITS	NO. EX.	FREQ. OF ANALYSIS	SAMPLE TYPE
Flow, In Conduit or Thru Treatment Plant 50050 1 Effluent Gross Value	SAMPLE MEASUREMENT PERMIT REQUIREMENT QL	510	532	REPORT 01MOAV ***** *****	REPORT 01DAMX ***** *****	MGD	0	1/Day	CALCTD
		*****	*****						
		*****	*****						
pH 00400 1 Effluent Gross Value	SAMPLE MEASUREMENT PERMIT REQUIREMENT QL	*****	*****	7.6 6.0 01DAMN *****	8.5 9.0 01DAMX *****	SU	0	1/Week	GRAB
		*****	*****						
		*****	*****						
pH 00400 7 Intake From Stream	SAMPLE MEASUREMENT PERMIT REQUIREMENT QL	*****	*****	7.8 REPORT 01DAMN *****	8.3 REPORT 01DAMX *****	SU	0	1/Week	GRAB
		*****	*****						
		*****	*****						
LC50 Statre 96hr Acu Cyprinodon TANGA 1 Effluent Gross Value	SAMPLE MEASUREMENT PERMIT REQUIREMENT QL	*****	*****	CODE=N 50 01DAMN *****	***** ***** *****	%EFFL	0	CODE=N	CODE=N
		*****	*****						
		*****	*****						
Chlorine Produced Oxidants *CPOX 1 Effluent Gross Value Option 1	SAMPLE MEASUREMENT PERMIT REQUIREMENT QL	*****	*****	***** 0.3 01MOAV *****	CODE=N 0.5 01DAMX *****	MG/L	0	CODE=N	CODE=N
		*****	*****						
		*****	*****						
Chlorine Produced Oxidants *CPOX 1 Effluent Gross Value Option 2	SAMPLE MEASUREMENT PERMIT REQUIREMENT QL	*****	*****	***** REPORT 01MOAV *****	<0.1 0.2 01DAMX *****	MG/L	0	3/Week	GRAB
		*****	*****						
		*****	*****						

Comments: The permittee is required to perform acute toxicity testing on a minimum of one representative CWS outfall while DSN 48C is being routed to that outfall.

Pre-Print Creation Date: 10/1/2013

Surface Water Discharge Monitoring Report

PI 46814

PERMIT NUMBER: NJ0005622 MONITORED LOCATION: 481A SW Outfall 481A MONITORING PERIOD: 12/1/2013 TO 12/31/2013 FACILITY NAME: PSEG NUCLEAR LLC SALEM GENERATOR

PARAMETER		QUANTITY OR LOADING	UNITS	QUALITY OR CONCENTRATION		UNITS	NO. EX.	FREQ. OF ANALYSIS	SAMPLE TYPE
Temperature, oC 00010 1 Effluent Gross Value	SAMPLE MEASUREMENT	*****		*****	14.6	19.2	0	1/Day	CONTIN
	PERMIT REQUIREMENT	*****	*****	*****	REPORT 01M/OAV	REPORT 01D/MX			
	QL	*****	*****	*****	*****	*****			
Lab Certification # 99999 99 Lab	SAMPLE MEASUREMENT	17327	17451	PA166					
	PERMIT REQUIREMENT	REPORT Lab #	REPORT Lab #	REPORT Lab #	REPORT Lab #	REPORT Lab #		Not Applicable	NOT AP
	QL	*****	*****	*****	*****	*****			

Comments: The permittee is required to perform acute toxicity testing on a minimum of one representative CWS outfall while DSN 48C is being routed to that outfall.

Pre-Print Creation Date: 10/1/2013

New Jersey Department of Environmental Protection
Division of Water Quality

Surface Water Discharge Monitoring Report Submittal Form

NJPDES PERMIT	MONITORING PERIOD				MONITORED LOCATION:	
NJ0005622	Month 12	Day 1	Year 2013	To Month 12 Day 31 Year 2013	482A - SW Outfall 482A	

PERMITTEE:
PSEG NUCLEAR LLC
80 PARK PLAZA
NEWARK, NJ 07101

LOCATION OF ACTIVITY:
PSEG NUCLEAR LLC SALEM
GENERATING STATION
ALLOWAY CREEK NECK RD
HANCOCKS BRIDGE, NJ 08038

REPORT RECIPIENT:
PSEG NUCLEAR LLC
PO BOX 236/N21
HANCOCKS BRIDGE, NJ 08038

REGION / COUNTY: Southern / Salem County

CHECK IF APPLICABLE: ☐ No Discharge this Monitoring Period ☐ Monitoring Report Comments Attached

WHO MUST SIGN The highest ranking official having day-to-day managerial and operational responsibilities for the discharging facility shall sign the certification or, in his absence a person designated by that person. For a local agency, the highest ranking operator of the treatment works shall sign the certification. Where the highest ranking operator does not have the ability to authorize capital expenditures and hire personnel, a person having that responsibility or person designated by that person shall also sign the second certification at the bottom of this page. If the local agency has contracted with another entity to operate the treatment works, the highest-ranking official of the contracted entity shall sign the certification.

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John F. Perry, Site Vice President - Salem

N/A

NAME AND TITLE OF PRINCIPAL EXECUTIVE OFFICER, AUTHORIZED AGENT, OR *LICENSED OPERATOR GRADE AND REGISTRY NUMBER (IF APPLICABLE)

1/23/2014 856-339-3463

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER, AUTHORIZED AGENT, OR *LICENSED OPERATOR DATE AREA CODE/PHONE NUMBER

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I certify under penalty of law and in accordance with N.J.S.A. 58:10A-6F(5) that I have reviewed the attached discharge monitoring reports.

N/A

N/A

N/A

N/A

NAME AND TITLE

SIGNATURE

DATE

AREA CODE/PHONE NUMBER

Surface Water Discharge Monitoring Report

PI 46814

PERMIT NUMBER: NJ0005622 MONITORED LOCATION: 482A SW Outfall 482A MONITORING PERIOD: 12/1/2013 TO 12/31/2013 FACILITY NAME: PSEG NUCLEAR LLC SALEM GENERATING

PARAMETER	QUANTITY OR LOADING		UNITS	QUALITY OR CONCENTRATION		UNITS	NO. EX.	FREQ. OF ANALYSIS	SAMPLE TYPE
Flow, In Conduit or Thru Treatment Plant 50050 1 Effluent Gross Value	SAMPLE MEASUREMENT PERMIT REQUIREMENT QL	503	504	*****	*****	*****	0	1/Day	CALC TD
		REPORT 01MOAV	REPORT 01DAMX	*****	*****	*****		1/Day	CALGTD
		*****	*****	*****	*****	*****			
pH 00400 1 Effluent Gross Value	SAMPLE MEASUREMENT PERMIT REQUIREMENT QL	*****	*****	7.8	8.2	SU	0	1/Week	GRAB
		*****	*****	6.0 01DAMN	9.0 01DAMX			1/Week	GRAB
		*****	*****	*****	*****				
pH 00400 7 Intake From Stream	SAMPLE MEASUREMENT PERMIT REQUIREMENT QL	*****	*****	7.8	8.3	SU	0	1/Week	GRAB
		*****	*****	REPORT 01DAMN	REPORT 01DAMX			1/Week	GRAB
		*****	*****	*****	*****				
LC50 Statre 96hr Acu Cyprinodon TAN6A 1 Effluent Gross Value	SAMPLE MEASUREMENT PERMIT REQUIREMENT QL	*****	*****	CODE=N	*****	%EFFL	0	CODE=N	CODE=N
		*****	*****	50 01DAMN	*****			2/Year	COMPOS
		*****	*****	*****	*****				
Chlorine Produced Oxidants *CPOX 1 Effluent Gross Value Option 1	SAMPLE MEASUREMENT PERMIT REQUIREMENT QL	*****	*****	*****	CODE=N	MGIL	0	CODE=N	CODE=N
		*****	*****	*****	0.3 01MOAV			3/Week	GRAB
		*****	*****	*****	*****				
Chlorine Produced Oxidants *CPOX 1 Effluent Gross Value Option 2	SAMPLE MEASUREMENT PERMIT REQUIREMENT QL	*****	*****	*****	CODE=N	MGIL	0	3/Week	GRAB
		*****	*****	*****	0.2 01DAMX			3/Week	GRAB
		*****	*****	*****	*****				


Comments: The permittee is required to perform acute toxicity testing on a minimum of one representative CWS outfall while DSN 48C is being routed to that outfall.

Pre-Print Creation Date: 10/1/2013

Surface Water Discharge Monitoring Report

PI 46814

PERMIT NUMBER: NJ0005622 MONITORED LOCATION: 482A SW Outfall 482A MONITORING PERIOD: 12/1/2013 TO 12/31/2013 FACILITY NAME: PSEG NUCLEAR LLC SALEM GENERATION

PARAMETER		QUANTITY OR LOADING	UNITS	QUALITY OR CONCENTRATION	UNITS	NO. EX.	FREQ. OF ANALYSIS	SAMPLE TYPE
Temperature, oC 00010 1 Effluent Gross Value								
	SAMPLE MEASUREMENT	*****	*****	*****		0	1/Day	CONTIN
	PERMIT REQUIREMENT	*****	*****	*****			1/Day	CONTIN
Lab Certification # 99999 99 Lab	QL							
	SAMPLE MEASUREMENT	17327	17451	PA166				
	PERMIT REQUIREMENT	REPORT Lab #	REPORT Lab #	REPORT Lab #			Not Applicable	NOT AP
	QL	*****	*****	*****				

Comments: The permittee is required to perform acute toxicity testing on a minimum of one representative CWS outfall while DSN 48C is being routed to that outfall.

Pre-Print Creation Date: 10/1/2013

New Jersey Department of Environmental Protection
Division of Water Quality

Surface Water Discharge Monitoring Report Submittal Form

NJPDES PERMIT	MONITORING PERIOD				MONITORED LOCATION:	
NJ0005622	Month 12	Day 1	Year 2013	To	Month 12	Day 31
						Year 2013
					483A – SW Outfall 483A	

PERMITTEE:
PSEG NUCLEAR LLC
80 PARK PLAZA
NEWARK, NJ 07101

LOCATION OF ACTIVITY:
PSEG NUCLEAR LLC SALEM
GENERATING STATION
ALLOWAY CREEK NECK RD
HANCOCKS BRIDGE, NJ 08038

REPORT RECIPIENT:
PSEG NUCLEAR LLC
PO BOX 236/N21
HANCOCKS BRIDGE, NJ 08038

REGION / COUNTY: Southern / Salem County

CHECK IF APPLICABLE: ☐ No Discharge this Monitoring Period ☐ Monitoring Report Comments Attached

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John F. Perry, Site Vice President - Salem

N/A

NAME AND TITLE OF PRINCIPAL EXECUTIVE OFFICER, AUTHORIZED AGENT, OR *LICENSED OPERATOR GRADE AND REGISTRY NUMBER (IF APPLICABLE)

John F. Perry 1/23/2014 856-339-3463

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER, AUTHORIZED AGENT, OR *LICENSED OPERATOR DATE AREA CODE/PHONE NUMBER

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N/A

N/A

N/A

N/A

NAME AND TITLE

SIGNATURE

DATE

AREA CODE/PHONE NUMBER

Surface Water Discharge Monitoring Report

PI 46814

PERMIT NUMBER: NJ0005622 MONITORED LOCATION: 483A SW Outfall 483A MONITORING PERIOD: 12/1/2013 TO 12/31/2013 FACILITY NAME: PSEG NUCLEAR LLC SALEM GENERATOR

PARAMETER	QUANTITY OR LOADING		UNITS	QUALITY OR CONCENTRATION		UNITS	NO. EX.	FREQ. OF ANALYSIS	SAMPLE TYPE
Flow, In Conduit or Thru Treatment Plant 50050 1 Effluent Gross Value	SAMPLE MEASUREMENT	537	537	*****	*****	*****	0	1/Day	CALCTD
	PERMIT REQUIREMENT	REPORT 01MOAV	REPORT 01DAMX	*****	*****	*****		1/Day	CALCTD
	QL	*****	*****	*****	*****	*****			
pH 00400 1 Effluent Gross Value	SAMPLE MEASUREMENT	*****	*****	7.1	8.1	SU	0	1/Week	GRAB
	PERMIT REQUIREMENT	*****	*****	6.0 01DAMN	9.0 01DAMX	*****		1/Week	GRAB
	QL	*****	*****	*****	*****	*****			
pH 00400 7 Intake From Stream	SAMPLE MEASUREMENT	*****	*****	7.8	8.3	SU	0	1/Week	GRAB
	PERMIT REQUIREMENT	*****	*****	REPORT 01DAMN	REPORT 01DAMX	*****		1/Week	GRAB
	QL	*****	*****	*****	*****	*****			
Chlorine Produced Oxidants *CPOX 1 Effluent Gross Value Option 1	SAMPLE MEASUREMENT	*****	*****	*****	CODE=N	MG/L	0	CODE=N	CODE=N
	PERMIT REQUIREMENT	*****	*****	*****	0.3 01MOAV	*****		3/Week	GRAB
	QL	*****	*****	*****	*****	*****			
Chlorine Produced Oxidants *CPOX 1 Effluent Gross Value Option 2	SAMPLE MEASUREMENT	*****	*****	*****	CODE=N	MG/L	0	3/Week	GRAB
	PERMIT REQUIREMENT	*****	*****	*****	0.2 01DAMX	*****		3/Week	GRAB
	QL	*****	*****	*****	*****	*****			
Temperature, oC 00010 1 Effluent Gross Value	SAMPLE MEASUREMENT	*****	*****	*****	13.8	DEG.C	0	1/Day	CONTIN
	PERMIT REQUIREMENT	*****	*****	*****	REPORT 01MOAV	*****		1/Day	CONTIN
	QL	*****	*****	*****	*****	*****			


Comments: Any questions in regards to the monitoring report form can be directed to S. Rosenwinkel of the BPSP - Region 2 at (609)292-4860.

Pre-Print Creation Date: 10/1/2013

Surface Water Discharge Monitoring Report

PI 46814

PERMIT NUMBER: NJ0005622 MONITORED LOCATION: 483A SW Outfall 483A MONITORING PERIOD: 12/1/2013 TO 12/31/2013 FACILITY NAME: PSEG NUCLEAR LLC SALEM GENERATOR

PARAMETER		QUANTITY OR LOADING	UNITS	QUALITY OR CONCENTRATION	UNITS	NO. EX.	FREQ. OF ANALYSIS	SAMPLE TYPE
Lab Certification # 99999 99 Lab								
	SAMPLE MEASUREMENT	17327	174SI	PA166				
	PERMIT REQUIREMENT	REPORT Lab #	REPORT Lab #	REPORT Lab #				
	QL	*****	*****	*****			Not Applicable	NOT AP

Comments: Any questions in regards to the monitoring report form can be directed to S. Rosenwinkel of the BPSP - Region 2 at (609)292-4860.

Pre-Print Creation Date: 10/1/2013

New Jersey Department of Environmental Protection
Division of Water Quality

Surface Water Discharge Monitoring Report Submittal Form

NJPDES PERMIT	MONITORING PERIOD				MONITORED LOCATION:
NJ0005622	Month 12	Day 1	Year 2013	To Month 12 Day 31 Year 2013	484A - SW Outfall 484A

PERMITTEE:
PSEG NUCLEAR LLC
80 PARK PLAZA
NEWARK, NJ 07101

LOCATION OF ACTIVITY:
PSEG NUCLEAR LLC SALEM
GENERATING STATION
ALLOWAY CREEK NECK RD
HANCOCKS BRIDGE, NJ 08038

REPORT RECIPIENT:
PSEG NUCLEAR LLC
PO BOX 236/N21
HANCOCKS BRIDGE, NJ 08038

REGION / COUNTY: Southern / Salem County

CHECK IF APPLICABLE: ☐ No Discharge this Monitoring Period ☐ Monitoring Report Comments Attached

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John F. Perry, Site Vice President - Salem

N/A

NAME AND TITLE OF PRINCIPAL EXECUTIVE OFFICER, AUTHORIZED AGENT, OR *LICENSED OPERATOR **GRADE AND REGISTRY NUMBER (IF APPLICABLE)**

1/23/2014 856-339-3463

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER, AUTHORIZED AGENT, OR *LICENSED OPERATOR **DATE** **AREA CODE/PHONE NUMBER**

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I certify under penalty of law and in accordance with N.J.S.A. 58:10A-6F(5) that I have reviewed the attached discharge monitoring reports.

N/A

N/A

N/A

N/A

NAME AND TITLE

SIGNATURE

DATE

AREA CODE/PHONE NUMBER

Surface Water Discharge Monitoring Report

PI 46814

PERMIT NUMBER: NJ0005622 MONITORED LOCATION: 484A SW Outfall 484A MONITORING PERIOD: 12/1/2013 TO 12/31/2013 FACILITY NAME: PSEG NUCLEAR LLC SALEM GENERATOR

PARAMETER	QUANTITY OR LOADING		UNITS	QUALITY OR CONCENTRATION		UNITS	NO. EX.	FREQ. OF ANALYSIS	SAMPLE TYPE
Flow, In Conduit or Thru Treatment Plant 50050 1 Effluent Gross Value	SAMPLE MEASUREMENT	441			*****		0	1/Day	CALC'D
	PERMIT REQUIREMENT	REPORT 01MOAV			*****				
	QL	*****	MGD		*****				
pH 00400 1 Effluent Gross Value	SAMPLE MEASUREMENT	*****		6.5	*****		0	1/Week	GRAB
	PERMIT REQUIREMENT	*****	*****	6.0 01DAMN	*****			1/Day	CALC'D
	QL	*****	*****	*****	*****	SU			
pH 00400 7 Intake From Stream	SAMPLE MEASUREMENT	*****		7.8	*****		0	1/Week	GRAB
	PERMIT REQUIREMENT	*****	*****	REPORT 01DAMN	*****			1/Week	GRAB
	QL	*****	*****	*****	*****	SU			
LC50 Statre 96hr Acu Cyprinodon TAN6A 1 Effluent Gross Value	SAMPLE MEASUREMENT	*****		CODE = N	*****		0	CODE = N	CODE = N
	PERMIT REQUIREMENT	*****	*****	50 01DAMN	*****			2/Year	COMPOS
	QL	*****	*****	*****	*****	%EFFL			
Chlorine Produced Oxidants *CPOX 1 Effluent Gross Value Option 1	SAMPLE MEASUREMENT	*****		*****	*****		0	CODE = N	CODE = N
	PERMIT REQUIREMENT	*****	*****	CODE = N	*****			3/Week	GRAB
	QL	*****	*****	0.3 01MOAV	*****	MG/L			
Chlorine Produced Oxidants *CPOX 1 Effluent Gross Value Option 2	SAMPLE MEASUREMENT	*****		*****	*****		0	3/Week	GRAB
	PERMIT REQUIREMENT	*****	*****	40.1	*****			3/Week	GRAB
	QL	*****	*****	REPORT 01MOAV	*****	MG/L			

Comments: The permittee is required to perform acute toxicity testing on a minimum of one representative CWS outfall while DSN 48C is being routed to that outfall.

Pre-Print Creation Date: 10/1/2013

Surface Water Discharge Monitoring Report

PI 46814

PERMIT NUMBER: NJ0005622 MONITORED LOCATION: 484A SW Outfall 484A MONITORING PERIOD: 12/1/2013 TO 12/31/2013 FACILITY NAME: PSEG NUCLEAR LLC SALEM GENERATOR

PARAMETER		QUANTITY OR LOADING	UNITS	QUALITY OR CONCENTRATION	UNITS	NO. EX.	FREQ. OF ANALYSIS	SAMPLE TYPE
Temperature, °C	SAMPLE MEASUREMENT	*****	*****	*****	*****	0	1/Day	CONTIN
00010 1 Effluent Gross Value	PERMIT REQUIREMENT	*****	*****	REPORT 01MOAV *****	REPORT 01DAMX *****			
	QL	*****	*****	*****	*****			
Lab Certification #	SAMPLE MEASUREMENT	17327	17451	PA166				
99999 99 Lab	PERMIT REQUIREMENT	REPORT Lab #	REPORT Lab #	REPORT Lab #	REPORT Lab #		Not Applicable	NOT AP
	QL	*****	*****	*****	*****			

Comments: The permittee is required to perform acute toxicity testing on a minimum of one representative CWS outfall while DSN 48C is being routed to that outfall.

Pre-Print Creation Date: 10/1/2013

New Jersey Department of Environmental Protection
Division of Water Quality

Surface Water Discharge Monitoring Report Submittal Form

NJPDES PERMIT	MONITORING PERIOD				MONITORED LOCATION:	
NJ0005622	Month 12	Day 1	Year 2013	To Month 12	Day 31	Year 2013
					485A – SW Outfall 485A	

PERMITTEE:
PSEG NUCLEAR LLC
80 PARK PLAZA
NEWARK, NJ 07101

LOCATION OF ACTIVITY:
PSEG NUCLEAR LLC SALEM
GENERATING STATION
ALLOWAY CREEK NECK RD
HANCOCKS BRIDGE, NJ 08038

REPORT RECIPIENT:
PSEG NUCLEAR LLC
PO BOX 236/N21
HANCOCKS BRIDGE, NJ 08038

REGION / COUNTY: Southern / Salem County

CHECK IF APPLICABLE: ☐ No Discharge this Monitoring Period ☐ Monitoring Report Comments Attached

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John F. Perry, Site Vice President - Salem

N/A

NAME AND TITLE OF PRINCIPAL EXECUTIVE OFFICER, AUTHORIZED AGENT, OR *LICENSED OPERATOR GRADE AND REGISTRY NUMBER (IF APPLICABLE)

John F. Perry

1/23/2014

856-339-3463

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER, AUTHORIZED AGENT, OR *LICENSED OPERATOR DATE AREA CODE/PHONE NUMBER

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N/A

N/A

N/A

N/A

NAME AND TITLE

SIGNATURE

DATE

AREA CODE/PHONE NUMBER

Surface Water Discharge Monitoring Report

PI 46814

PERMIT NUMBER: NJ0005622 MONITORED LOCATION: 485A SW Outfall 485A MONITORING PERIOD: 12/1/2013 TO 12/31/2013 FACILITY NAME: PSEG NUCLEAR LLC SALEM GENERATING

PARAMETER	QUANTITY OR LOADING		UNITS	QUALITY OR CONCENTRATION		UNITS	NO. EX.	FREQ. OF ANALYSIS	SAMPLE TYPE
Flow, In Conduit or Thru Treatment Plant 50050 1 Effluent Gross Value	SAMPLE MEASUREMENT PERMIT REQUIREMENT QL	403	422	REPORT 01MOAV ***** *****	***** ***** *****	MGD	0	1/Day	CALCTD
		REPORT 01MOAV	REPORT 01DAMX						
		*****	*****						
pH 00400 1 Effluent Gross Value	SAMPLE MEASUREMENT PERMIT REQUIREMENT QL	*****	*****	***** ***** *****	***** ***** *****	*****	0	1/Week	GRAB
		*****	*****						
		*****	*****						
pH 00400 7 Intake From Stream	SAMPLE MEASUREMENT PERMIT REQUIREMENT QL	*****	*****	***** ***** *****	***** ***** *****	*****	0	1/Week	GRAB
		*****	*****						
		*****	*****						
LC50 Statre 96hr Acute Cyprinodon TAN6A 1 Effluent Gross Value	SAMPLE MEASUREMENT PERMIT REQUIREMENT QL	*****	*****	***** ***** *****	***** ***** *****	*****	0	CODE=N	CODE=N
		*****	*****						
		*****	*****						
Chlorine Produced Oxidants *CPOX 1 Effluent Gross Value Option 1	SAMPLE MEASUREMENT PERMIT REQUIREMENT QL	*****	*****	***** ***** *****	***** ***** *****	*****	0	CODE=N	CODE=N
		*****	*****						
		*****	*****						
Chlorine Produced Oxidants *CPOX 1 Effluent Gross Value Option 2	SAMPLE MEASUREMENT PERMIT REQUIREMENT QL	*****	*****	***** ***** *****	***** ***** *****	*****	0	3/Week	GRAB
		*****	*****						
		*****	*****						

Comments: The permittee is required to perform acute toxicity testing on a minimum of one representative CWS outfall while DSN 48C is being routed to that outfall.

Pre-Print Creation Date: 10/1/2013

Surface Water Discharge Monitoring Report

PI 46814

PERMIT NUMBER: NJ0005622 MONITORED LOCATION: 485A SW Outfall 485A MONITORING PERIOD: 12/1/2013 TO 12/31/2013 FACILITY NAME: PSEG NUCLEAR LLC SALEM GENERATOR

PARAMETER	QUANTITY OR LOADING		UNITS	QUALITY OR CONCENTRATION		UNITS	NO. EX.	FREQ. OF ANALYSIS	SAMPLE TYPE
Temperature, oC 00010 1 Effluent Gross Value	SAMPLE MEASUREMENT	*****	*****	*****	14.2	17.6	0	1/Day	CONTIN
	PERMIT REQUIREMENT	*****	*****	*****	REPORT 01MOAV	REPORT 01DANX			
	QL	*****	*****	*****	*****	*****			
Lab Certification # 99999 99 Lab	SAMPLE MEASUREMENT	17327	17451	PA166					
	PERMIT REQUIREMENT	REPORT Lab #	REPORT Lab #	REPORT Lab #	REPORT Lab #	REPORT Lab #			
	QL	*****	*****	*****	*****	*****		Not Applicable	NOT AP

Comments: The permittee is required to perform acute toxicity testing on a minimum of one representative CWS outfall while DSN 48C is being routed to that outfall.

Pre-Print Creation Date: 10/1/2013

New Jersey Department of Environmental Protection
Division of Water Quality

Surface Water Discharge Monitoring Report Submittal Form

NJPDES PERMIT	MONITORING PERIOD				MONITORED LOCATION:		
NJ0005622	Month 12	Day 1	Year 2013	To	Month 12	Day 31	Year 2013
					486A – SW Outfall 486A		

PERMITTEE:
PSEG NUCLEAR LLC
80 PARK PLAZA
NEWARK, NJ 07101

LOCATION OF ACTIVITY:
PSEG NUCLEAR LLC, SALEM
GENERATING STATION
ALLOWAY CREEK NECK RD
HANCOCKS BRIDGE, NJ 08038

REPORT RECIPIENT:
PSEG NUCLEAR LLC
PO BOX 236/N21
HANCOCKS BRIDGE, NJ 08038

REGION / COUNTY: Southern / Salem County

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John F. Perry, Site Vice President - Salem

N/A

NAME AND TITLE OF PRINCIPAL EXECUTIVE OFFICER, AUTHORIZED AGENT, OR *LICENSED OPERATOR GRADE AND REGISTRY NUMBER (IF APPLICABLE)

John F. Perry

1/23/2014

856-339-3463

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N/A

N/A

N/A

N/A

NAME AND TITLE

SIGNATURE

DATE

AREA CODE/PHONE NUMBER

Surface Water Discharge Monitoring Report

PI 46814

PERMIT NUMBER: NJ0005622 MONITORED LOCATION: 486A SW Outfall 486A MONITORING PERIOD: 12/1/2013 TO 12/31/2013 FACILITY NAME: PSEG NUCLEAR LLC SALEM GENERATOR

PARAMETER	QUANTITY OR LOADING		UNITS	QUALITY OR CONCENTRATION		UNITS	NO. EX.	FREQ. OF ANALYSIS	SAMPLE TYPE
Flow, In Conduit or Thru Treatment Plant 50050 1 Effluent Gross Value	SAMPLE MEASUREMENT PERMIT REQUIREMENT QL	409 REPORT 01MOAV *****	423 REPORT 01DAMX *****	MGD	***** ***** *****	*****	0	1/Day	CALC'D
pH 00400 1 Effluent Gross Value	SAMPLE MEASUREMENT PERMIT REQUIREMENT QL	***** ***** *****	***** ***** *****	*****	7.2 6.0 01DAMN *****	*****	0	1/Week	GRAB
pH 00400 7 Intake From Stream	SAMPLE MEASUREMENT PERMIT REQUIREMENT QL	***** ***** *****	***** ***** *****	*****	7.8 REPORT 01DAMN *****	*****	0	1/Week	GRAB
Chlorine Produced Oxidants *CPOX 1 Effluent Gross Value Option 1	SAMPLE MEASUREMENT PERMIT REQUIREMENT QL	***** ***** *****	***** ***** *****	*****	***** REPORT 01DAMN *****	*****	0	CODE = N	CODE = N
Chlorine Produced Oxidants *CPOX 1 Effluent Gross Value Option 2	SAMPLE MEASUREMENT PERMIT REQUIREMENT QL	***** ***** *****	***** ***** *****	*****	***** 0.3 01MOAV *****	*****	0	3/Week	GRAB
Temperature, oC 00010 1 Effluent Gross Value	SAMPLE MEASUREMENT PERMIT REQUIREMENT QL	***** ***** *****	***** ***** *****	*****	***** 14.1 REPORT 01MOAV *****	*****	0	1/Day	CONTIN

Comments: Any questions in regards to the monitoring report form can be directed to S. Rosenwinkel of the BPSP - Region 2 at (609)292-4860.

Pre-Print Creation Date: 10/1/2013

Surface Water Discharge Monitoring Report

PI 46814

PERMIT NUMBER: NJ0005622 MONITORED LOCATION: 486A SW Outfall 486A MONITORING PERIOD: 12/1/2013 TO 12/31/2013 FACILITY NAME: PSEG NUCLEAR LLC SALEM GENERATING

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING	UNITS	QUALITY OR CONCENTRATION	UNITS	NO. EX.	FREQ. OF ANALYSIS	SAMPLE TYPE
Lab Certification #								
99999 99 Lab		17327	174SI	PA166				
	PERMIT REQUIREMENT	REPORT Lab #	REPORT Lab #	REPORT Lab #				
	QL	*****	*****	*****				
							Not Applicable	NOT AP

Comments: Any questions in regards to the monitoring report form can be directed to S. Rosenwinkel of the BPSP - Region 2 at (609)292-4860.

Pre-Print Creation Date: 10/1/2013

New Jersey Department of Environmental Protection
Division of Water Quality

Surface Water Discharge Monitoring Report Submittal Form

NJPDES PERMIT	MONITORING PERIOD				MONITORED LOCATION:		
NJ0005622	Month 12	Day 1	Year 2013	To	Month 12	Day 31	Year 2013
					487B – SW Outfall 487B		

PERMITTEE:
PSEG NUCLEAR LLC
80 PARK PLAZA
NEWARK, NJ 07101

LOCATION OF ACTIVITY:
PSEG NUCLEAR LLC SALEM
GENERATING STATION
ALLOWAY CREEK NECK RD
HANCOCKS BRIDGE, NJ 08038

REPORT RECIPIENT:
PSEG NUCLEAR LLC
PO BOX 236/N21
HANCOCKS BRIDGE, NJ 08038

REGION / COUNTY: Southern / Salem County

CHECK IF APPLICABLE: ☒ No Discharge this Monitoring Period ☐ Monitoring Report Comments Attached

WHO MUST SIGN The highest ranking official having day-to-day managerial and operational responsibilities for the discharging facility shall sign the certification or, in his absence a person designated by that person. For a local agency, the highest ranking operator of the treatment works shall sign the certification. Where the highest ranking operator does not have the ability to authorize capital expenditures and hire personnel, a person having that responsibility or person designated by that person shall also sign the second certification at the bottom of this page. If the local agency has contracted with another entity to operate the treatment works, the highest-ranking official of the contracted entity shall sign the certification.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of and/or imprisonment, pursuant to N.J.A.C. 7:14A-6.9(B). The New Jersey water Pollution Control Act provides for penalties up to \$50,000 per violation.

John F. Perry, Site Vice President - Salem

N/A

NAME AND TITLE OF PRINCIPAL EXECUTIVE OFFICER, AUTHORIZED AGENT, OR *LICENSED OPERATOR GRADE AND REGISTRY NUMBER (IF APPLICABLE)

John F. Perry

1/23/2014

856-339-3463

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER, AUTHORIZED AGENT, OR *LICENSED OPERATOR DATE AREA CODE/PHONE NUMBER

**For a local agency where the highest-ranking operator does not have the ability to authorize capital expenditures and hire personnel, a person having that responsibility or person designated by that person shall sign the following certification:*

I certify under penalty of law and in accordance with N.J.S.A. 58:10A-6F(5) that I have reviewed the attached discharge monitoring reports.

N/A

N/A

N/A

N/A

NAME AND TITLE

SIGNATURE

DATE

AREA CODE/PHONE NUMBER

New Jersey Department of Environmental Protection
Division of Water Quality

Surface Water Discharge Monitoring Report Submittal Form

NJPDES PERMIT	MONITORING PERIOD				MONITORED LOCATION:		
NJ0005622	Month 12	Day 1	Year 2013	To	Month 12	Day 31	Year 2013
					489 A – SW Outfall 489A		

PERMITTEE:
PSEG NUCLEAR LLC
80 PARK PLAZA
NEWARK, NJ 07101

LOCATION OF ACTIVITY:
PSEG NUCLEAR LLC SALEM
GENERATING STATION
ALLOWAY CREEK NECK RD
HANCOCKS BRIDGE, NJ 08038

REPORT RECIPIENT:
PSEG NUCLEAR LLC
PO BOX 236/N21
HANCOCKS BRIDGE, NJ 08038

REGION / COUNTY: Southern / Salem County

CHECK IF APPLICABLE: ☐ No Discharge this Monitoring Period ☐ Monitoring Report Comments Attached

WHO MUST SIGN The highest ranking official having day-to-day managerial and operational responsibilities for the discharging facility shall sign the certification or, in his absence a person designated by that person. For a local agency, the highest ranking operator of the treatment works shall sign the certification. Where the highest ranking operator does not have the ability to authorize capital expenditures and hire personnel, a person having that responsibility or person designated by that person shall also sign the second certification at the bottom of this page. If the local agency has contracted with another entity to operate the treatment works, the highest-ranking official of the contracted entity shall sign the certification.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of and/or imprisonment, pursuant to N.J.A.C. 7:14A-6.9(B). The New Jersey water Pollution Control Act provides for penalties up to \$50,000 per violation.

John F. Perry, Site Vice President - Salem

N/A

NAME AND TITLE OF PRINCIPAL EXECUTIVE OFFICER, AUTHORIZED AGENT, OR *LICENSED OPERATOR GRADE AND REGISTRY NUMBER (IF APPLICABLE)

John F. Perry

1/23/2014 856-339-3463

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER, AUTHORIZED AGENT, OR *LICENSED OPERATOR DATE AREA CODE/PHONE NUMBER

**For a local agency where the highest-ranking operator does not have the ability to authorize capital expenditures and hire personnel, a person having that responsibility or person designated by that person shall sign the following certification:*

I certify under penalty of law and in accordance with N.J.S.A. 58:10A-6F(5) that I have reviewed the attached discharge monitoring reports.

N/A

N/A

N/A

N/A

NAME AND TITLE

SIGNATURE

DATE

AREA CODE/PHONE NUMBER

Surface Water Discharge Monitoring Report

PI 46814

PERMIT NUMBER: NJ0005622 MONITORED LOCATION: 489A SW Outfall 489A MONITORING PERIOD: 12/1/2013 TO 12/31/2013 FACILITY NAME: PSEG NUCLEAR LLC SALEM GENERATING

PARAMETER		QUANTITY OR LOADING	UNITS	QUALITY OR CONCENTRATION	UNITS	NO. EX.	FREQ. OF ANALYSIS	SAMPLE TYPE
Flow, In Conduit or Thru Treatment Plant 50050 1 Effluent Gross Value	SAMPLE MEASUREMENT	0.0511	0.0511	*****	*****	0	1/Month	CALC'D
	PERMIT REQUIREMENT	REPORT 0.1MOAV	*****	*****	*****		1/Month	CALC'D
	QL	*****	*****	*****	*****			
pH	SAMPLE MEASUREMENT	*****	*****	7.9	*****	0	1/Month	GRAB
	PERMIT REQUIREMENT	*****	*****	6.0 0.1DAMN	*****		1/Month	GRAB
	QL	*****	*****	*****	*****			
Solids, Total Suspended 00530 1 Effluent Gross Value	SAMPLE MEASUREMENT	*****	*****	4	*****	0	1/Month	GRAB
	PERMIT REQUIREMENT	*****	*****	100 0.1DAMX	*****		1/Month	GRAB
	QL	*****	*****	*****	*****			
Petroleum Hydrocarbons 00551 1 Effluent Gross Value	SAMPLE MEASUREMENT	*****	*****	45	*****	0	1/Month	GRAB
	PERMIT REQUIREMENT	*****	*****	30 0.1MOAV	*****		1/Month	GRAB
	QL	*****	*****	*****	*****			
Carbon, Tot Organic (TOC) 00680 1 Effluent Gross Value	SAMPLE MEASUREMENT	*****	*****	2	*****	0	1/Month	GRAB
	PERMIT REQUIREMENT	*****	*****	REPORT 0.1MOAV	*****		1/Month	GRAB
	QL	*****	*****	*****	*****			
Lab Certification #	SAMPLE MEASUREMENT	17327	17451	PA 166	*****			
	PERMIT REQUIREMENT	REPORT Lab #	REPORT Lab #	REPORT Lab #	*****		Not Applicable	NOT AP
	QL	*****	*****	*****	*****			

Comments: If there are any questions in regards to the monitoring report form, please contact Susan Rosenwinkel of the the BPSP - Region 2 at (609)292-4860 or via email at "srosenwi@dep.state.nj.us".

Pre-Print Creation Date: 10/1/2013



TO: Christopher E. White
 Nuclear Sr. Environmental Specialist
 Salem Environmental Affairs - PSEG Power

December 2, 2013
 Report No. MSPG13040

SUBJECT: **DETERMINATION OF CIRCULATING WATER FLOW AT
 SALEM GENERATING STATION UNIT 1**

CONDUCTED BY: Gary Floystad
 Sr. Test Engineer, PSEG Laboratory & Testing Services

SUMMARY

The Mechanical Systems Performance Group of PSEG Laboratory and Testing Services conducted a series of test runs at Salem Unit No. 1 to determine the capacities of the circulating water pumps as illustrated in the table below.

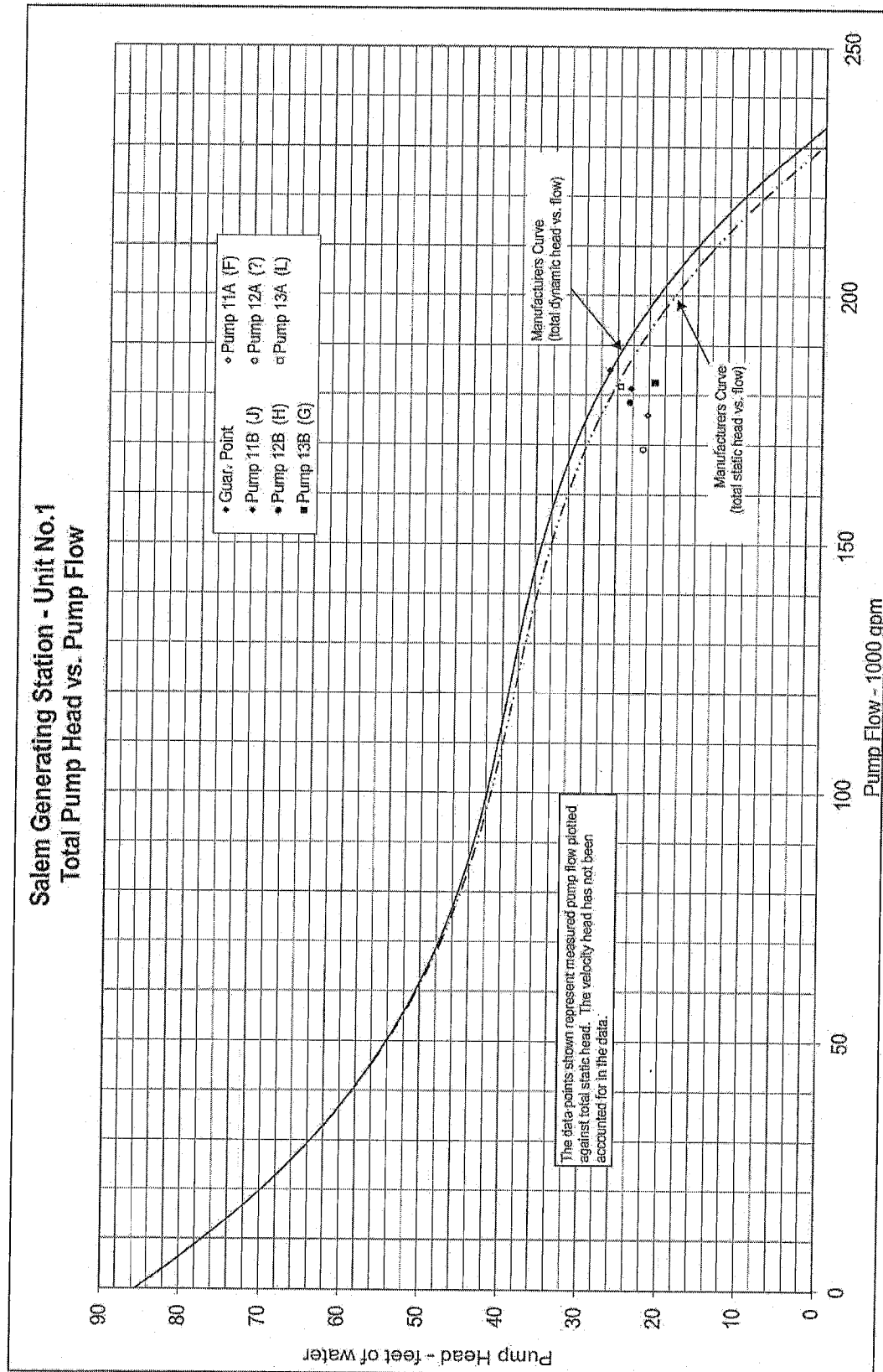
Work was performed under SAP work orders:
 30263016, 30263067, 30263017, 30263018, 30263063, 30263019, 60102948

Final results are as follows:

SUMMARY OF TEST RESULTS

Pump No.	CMS Pump Desig.	Test Date	Measured Pump Capacity (gpm)	Pump Suction Head (ft h ₂ o)	Pump Discharge Head (ft h ₂ o)	Total Static Head (ft h ₂ o)
11A	F	11/20/2013	175954	-6.6	15.6	22.2
11B	J	11/21/2013	181316	-8.7	15.6	24.3
12A	None	11/21/2013	169098	-7.9	14.8	22.7
12B	H	11/21/2013	178544	-7.3	17.1	24.4
13A	L	11/22/2013	181745	-9.5	16.1	25.6
13B	G	11/22/2013	182555	-7.5	13.8	21.3

Note: Pump suction heads and discharge heads were corrected to elevation 100.3'



Christopher E. White
Nuclear Sr. Environmental Specialist
Salem Environmental Affairs - PSEG Power

December 2, 2013
Report No. MSPG13040

CONCLUSIONS

For reporting purposes, shown below is the data pertinent to the injection of Rhodamine WT dye released to the river during testing. At this time testing is not complete at this station.

RECORD OF RHODAMINE WT DYE INJECTION (pursuant to additional testing)

Test Date	Pump No.	Injection Time		Pure Dye Injected (ml)	Number of Pumps in Service	Total System Flow (1000 gpm)	Effluent Concentration (ppb)
		(start)	(stop)				
11/20/2013	11A	1139	1209	41.66	11	2035.0	0.18
11/21/2013	11B	957	1023	36.29	11	2035.0	0.18
11/21/2013	12A	1039	1106	37.93	11	2035.0	0.18
11/21/2013	12B	1119	1145	36.39	11	2035.0	0.18
11/22/2013	13A	951	1019	38.08	11	2035.0	0.18
11/22/2013	13B	1144	1210	35.25	11	2035.0	0.18

TEST METHOD

The circulating water flow rate was determined by fluorometry using MTS Mechanical Division Work Instruction TPG-19 Rev. 13 "Water Flow Using The Turner Fluorometer". Rhodamine WT dye was injected into the bell mouth of each pump using 1/2 inc PVC pipe with a carrier flow of screen wash water at approximately 3 gallons per minute.

The dye was injected at a known rate using a peristaltic pump and a class A burette to measure rate. The diluted sample was retrieved and monitored by taking a sample from the inlet water box piping. The ratio of the injected concentration to the sample concentration multiplied by the injection flow rate yielded the circulator flow rate.

The total static head was obtained by measuring the pump suction head in feet from elevation 100.3' and the pump discharge head in feet of water at the water box inlet. After correcting for elevation, the total pump head was calculated as the pump discharge head minus the pump suction head.

ANSI Level II or III Evaluation

Vic Simpson
Senior Test Engineer
LTS Mechanical Division



State of New Jersey
Department of Environmental Protection
Surface Water Discharge Monitoring Report

PI: 46814

Shell Generation Date: 10/1/2017

PSEG NUCLEAR LLC SALEM GENERATING STATION - NJ0005622 - FACA SW Outfall FACA - 12/01/2017 - 12/31/2017

Permittee:

PSE&G NUCLEAR LLC
80 PARK PLAZA

NEWARK, NJ 07101

Location of Activity:

PSEG NUCLEAR LLC SALEM GENERATING STATION
ALLOWAY CREEK NECK RD

HANCOCKS BRIDGE, NJ 08038

Report Recipient:

PSEG NUCLEAR LLC
PO BOX 236/N21

HANCOCKS BRIDGE, NJ 08038

NJPDES Permit Number: NJ0005622
Monitoring Period: 12/01/2017 To 12/31/2017
Monitored Location: FACA SW Outfall FACA
Monitored Location Group:
Region / County: Southern / Salem

Check if Applicable: ☐ No Discharge This Monitoring Period

Monitoring Report Comments:

Please refer all permit related questions regarding this monitoring report form to your permit writer. Your permit writer's name and telephone number can be found on the cover letter of your permit. Questions about the electronic submission of this report may be referred to the Office of Permit Management at (609)984-4428.



State of New Jersey
Department of Environmental Protection

Surface Water Discharge Monitoring Report

PI: 46814

Shell Generation Date: 10/1/2017

PSEG NUCLEAR LLC SALEM GENERATING STATION - NJ0005622 - FACA SW Outfall FACA - 12/01/2017 - 12/31/2017

Discharge Monitoring Data:											
Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No Ex.	Frequency of Analysis	Sample Type
Temperature, °C 00010 G Raw Sew/influent	Sample Measurement	00000	00000	00000	00000	7.0	10.6	DEG.C	0	Continuous	CONTIN
	Permit Requirement	00000	00000		00000	REPORT 01MOAV	REPORT 01DAMX		Continuous	CONTIN	
	QL	00000	00000		00000	00000	00000				
Temperature, °C 00010 1 Effluent Gross Value	Sample Measurement	00000	00000	00000	00000	15.0	19.2	DEG.C	0	Continuous	CONTIN
	Permit Requirement	00000	00000		00000	REPORT 01MOAV	43.3 01DAMX		Continuous	CONTIN	
	QL	00000	00000		00000	00000	00000				
Temperature, °C 00010 2 Effluent Net Value	Sample Measurement	00000	00000	00000	00000	8.0	9.3	DEG.C	0	1 Day	CALCTD
	Permit Requirement	00000	00000		00000	REPORT 01MOAV	15.3 01DAMX		1/Day	CALCTD	
	QL	00000	00000		00000	00000	00000				
Lab Certification # 99999 99 Lab	Sample Measurement	06003	PA051	00000	17327			0	Not Applic	NOT AP	
	Permit Requirement	REPORT Lab #	REPORT Lab #		REPORT Lab #	REPORT Lab #	REPORT Lab #		Not Applic	NOT AP	
	QL	00000	00000		00000	00000	00000				



State of New Jersey
Department of Environmental Protection
Surface Water Discharge Monitoring Report

PI: 46814

Shell Generation Date: 10/1/2017

PSEG NUCLEAR LLC SALEM GENERATING STATION - NJ0005622 - FACB SW Outfall FACB - 12/01/2017 - 12/31/2017

Permittee:

PSEG NUCLEAR LLC
80 PARK PLAZA

NEWARK, NJ 07101

Location of Activity:

PSEG NUCLEAR LLC SALEM GENERATING STATION
ALLOWAY CREEK NECK RD

HANCOCKS BRIDGE, NJ 08038

Report Recipient:

PSEG NUCLEAR LLC
PO BOX 236/N21

HANCOCKS BRIDGE, NJ 08038

NJPDES Permit Number: NJ0005622
Monitoring Period: 12/01/2017 To 12/31/2017
Monitored Location: FACB SW Outfall FACB
Monitored Location Group:
Region / County: Southern / Salem

Check if Applicable: ☐ No Discharge This Monitoring Period

Monitoring Report Comments:

Please refer all permit related questions regarding this monitoring report form to your permit writer. Your permit writer's name and telephone number can be found on the cover letter of your permit. Questions about the electronic submission of this report may be referred to the Office of Permit Management at (609)984-4428.



State of New Jersey
Department of Environmental Protection
Surface Water Discharge Monitoring Report

PI: 46814

Shell Generation Date: 10/1/2017

PSEG NUCLEAR LLC SALEM GENERATING STATION - NJ0005622 - FACB SW Outfall FACB - 12/01/2017 - 12/31/2017

Discharge Monitoring Data:											
Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No Ex.	Frequency of Analysis	Sample Type
Temperature, °C 00010 G Raw Sew/Influent	Sample Measurement	*****	*****	*****	*****	7.0	10.6	DEG.C	0	Continuous	CONTIN
	Permit Requirement	*****	*****		*****	REPORT 01MOAV	REPORT 01DAMX			Continuous	CONTIN
	QL	*****	*****		*****	*****	*****				
Temperature, °C 00010 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	15.4	20.0	DEG.C	0	Continuous	CONTIN
	Permit Requirement	*****	*****		*****	REPORT 01MOAV	43.3 01DAMX			Continuous	CONTIN
	QL	*****	*****		*****	*****	*****				
Temperature, °C 00010 2 Effluent Net Value	Sample Measurement	*****	*****	*****	*****	8.4	9.3	DEG.C	0	1 Day	CALCTD
	Permit Requirement	*****	*****		*****	REPORT 01MOAV	15.3 01DAMX			1/Day	CALCTD
	QL	*****	*****		*****	*****	*****				
Lab Certification #	Sample Measurement	06003	PA051	*****	17327			*****	0	Not Applic	NOT AP
99999 99	Permit Requirement	REPORT Lab #	REPORT Lab #		REPORT Lab #	REPORT Lab #	REPORT Lab #			Not Applic	NOT AP
Lab	QL	*****	*****		*****	*****	*****				



State of New Jersey
Department of Environmental Protection
Surface Water Discharge Monitoring Report

PI: 46814

Shell Generation Date: 10/1/2017

PSEG NUCLEAR LLC SALEM GENERATING STATION - NJ0005622 - FACC SW Outfall FACC - 12/01/2017 - 12/31/2017

Permittee:

PSEG NUCLEAR LLC
80 PARK PLAZA

NEWARK, NJ 07101

Location of Activity:

PSEG NUCLEAR LLC SALEM GENERATING STATION
ALLOWAY CREEK NECK RD

HANCOCKS BRIDGE, NJ 08038

Report Recipient:

PSEG NUCLEAR LLC
PO BOX 236/N21

HANCOCKS BRIDGE, NJ 08038

NJPDES Permit Number: NJ0005622
Monitoring Period: 12/01/2017 To 12/31/2017
Monitored Location: FACC SW Outfall FACC
Monitored Location Group:
Region / County: Southern / Salem

Check if Applicable: ☐ No Discharge This Monitoring Period

Monitoring Report Comments:

Please refer all permit related questions regarding this monitoring report form to your permit writer. Your permit writer's name and telephone number can be found on the cover letter of your permit. Questions about the electronic submission of this report may be referred to the Office of Permit Management at (609)984-4428.



State of New Jersey
Department of Environmental Protection
Surface Water Discharge Monitoring Report

PI: 46814

Shell Generation Date: 10/1/2017

PSEG NUCLEAR LLC SALEM GENERATING STATION - NJ0005622 - FACC SW Outfall FACC - 12/01/2017 - 12/31/2017

Discharge Monitoring Data:											
Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No Ex.	Frequency of Analysis	Sample Type
Flow, In Conduit or Thru Treatment Plant 50050 G Raw Sew/Influent	Sample Measurement	2736	2856	MGD	*****	*****	*****	*****	0	1 Day	CALCTD
	Permit Requirement	3024	REPORT		*****	*****	*****				
	Requirement QL	01MOAV	01DAMX		*****	*****	*****			1/Day	CALCTD
Thermal Discharge Million BTUs per Hr 00015 2 Effluent Net Value	Sample Measurement	14368	14680	MBTU/HR	*****	*****	*****	*****	0	1 Day	CALCTD
	Permit Requirement	REPORT	30600		*****	*****	*****				
	Requirement QL	01MOAV	01DAMX		*****	*****	*****			1/Day	CALCTD
Lab Certification # 99999 99 Lab	Sample Measurement	06003	PA051		17327				0	Not Applic	NOT AP
	Permit Requirement	REPORT	REPORT		REPORT	REPORT	REPORT				
	Requirement QL	Lab #	Lab #		Lab #	Lab #	Lab #			Not Applic	NOT AP



State of New Jersey
Department of Environmental Protection
Surface Water Discharge Monitoring Report

PI: 46814

Shell Generation Date: 10/1/2017

PSEG NUCLEAR LLC SALEM GENERATING STATION - NJ0005622 - 048C SW Outfall 48C - 12/01/2017 - 12/31/2017

Permittee:

PSE&G NUCLEAR LLC
80 PARK PLAZA

NEWARK, NJ 07101

Location of Activity:

PSEG NUCLEAR LLC SALEM GENERATING STATION
ALLOWAY CREEK NECK RD

HANCOCKS BRIDGE, NJ 08038

Report Recipient:

PSEG NUCLEAR LLC
PO BOX 236/N21

HANCOCKS BRIDGE, NJ 08038

NJPDES Permit Number: NJ0005622
Monitoring Period: 12/01/2017 To 12/31/2017
Monitored Location: 048C SW Outfall 48C
Monitored Location Group:
Region / County: Southern / Salem

Check if Applicable: ☐ No Discharge This Monitoring Period

Monitoring Report Comments:

Please refer all permit related questions regarding this monitoring report form to your permit writer. Your permit writer's name and telephone number can be found on the cover letter of your permit. Questions about the electronic submission of this report may be referred to the Office of Permit Management at (609)984-4428.



State of New Jersey
Department of Environmental Protection
Surface Water Discharge Monitoring Report

PI: 46814

Shell Generation Date: 10/1/2017

PSEG NUCLEAR LLC SALEM GENERATING STATION - NJ0005622 - 048C SW Outfall 48C - 12/01/2017 - 12/31/2017

Discharge Monitoring Data:											
Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No Ex.	Frequency of Analysis	Sample Type
Flow, In Conduit or Thru Treatment Plant 50050 1 Effluent Gross Value	Sample Measurement	0.2989	0.6035	MGD	*****	*****	*****	*****	0	1 Day	CALCTD
	Permit Requirement	REPORT 01MOAV	REPORT 01DAMX		*****	*****	*****			1/Day	CALCTD
	QL	*****	*****		*****	*****	*****				
Solids, Total Suspended 00530 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	7	8	MG/L	0	2 Month	COMPOS
	Permit Requirement	*****	*****		*****	30 01MOAV	100 01DAMX			2/Month	COMPOS
	QL	*****	*****		*****	*****	*****				
Nitrogen, Ammonia Total (as N) 00610 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	1	2	MG/L	0	2 Month	COMPOS
	Permit Requirement	*****	*****		*****	35 01MOAV	70 01DAMX			2/Month	COMPOS
	QL	*****	*****		*****	*****	*****				
Petroleum Hydrocarbons 00551 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	<5	<5	MG/L	0	2 Month	GRAB
	Permit Requirement	*****	*****		*****	10 01MOAV	15 01DAMX			2/Month	GRAB
	QL	*****	*****		*****	*****	*****				
Carbon, Tot Organic (TOC) 00680 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	10	10	MG/L	0	2 Month	COMPOS
	Permit Requirement	*****	*****		*****	REPORT 01MOAV	50 01DAMX			2/Month	COMPOS
	QL	*****	*****		*****	*****	*****				
Lab Certification # 99999 99 Lab	Sample Measurement	06003	PA051	*****	17327			*****	0	Not Applic	NOT AP
	Permit Requirement	REPORT Lab #	REPORT Lab #		REPORT Lab #	REPORT Lab #	REPORT Lab #			Not Applic	NOT AP
	QL	*****	*****		*****	*****	*****				



State of New Jersey
Department of Environmental Protection
Surface Water Discharge Monitoring Report

PI: 46814

Shell Generation Date: 10/1/2017

PSEG NUCLEAR LLC SALEM GENERATING STATION - NJ0005622 - 481A SW Outfall 481A - 12/01/2017 - 12/31/2017

Permittee:

PSE&G NUCLEAR LLC
80 PARK PLAZA

NEWARK, NJ 07101

Location of Activity:

PSEG NUCLEAR LLC SALEM GENERATING STATION
ALLOWAY CREEK NECK RD

HANCOCKS BRIDGE, NJ 08038

Report Recipient:

PSEG NUCLEAR LLC
PO BOX 236/N21

HANCOCKS BRIDGE, NJ 08038

NJPDES Permit Number: NJ0005622
Monitoring Period: 12/01/2017 To 12/31/2017
Monitored Location: 481A SW Outfall 481A
Monitored Location Group:
Region / County: Southern / Salem

Check if Applicable: ☐ No Discharge This Monitoring Period

Monitoring Report Comments:

Please refer all permit related questions regarding this monitoring report form to your permit writer. Your permit writer's name and telephone number can be found on the cover letter of your permit. Questions about the electronic submission of this report may be referred to the Office of Permit Management at (609)984-4428.



State of New Jersey
Department of Environmental Protection
Surface Water Discharge Monitoring Report

PI: 46814
Shell Generation Date: 10/1/2017

PSEG NUCLEAR LLC SALEM GENERATING STATION - NJ0005622 - 481A SW Outfall 481A - 12/01/2017 - 12/31/2017

Discharge Monitoring Data:											
Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No Ex.	Frequency of Analysis	Sample Type
Flow, In Conduit or Thru Treatment Plant 50050 1 Effluent Gross Value	Sample	490	501	MGD	*****	*****	*****	*****	0	1 Day	CALCTD
	Measurement										
	Permit Requirement	REPORT 01MOAV	REPORT 01DAMX		*****	*****	*****				
	QL	*****	*****		*****	*****	*****				
pH 00400 1 Effluent Gross Value	Sample	*****	*****	*****	7.5	*****	7.6	SU	0	1 Week	GRAB
	Measurement				9.0	*****	9.0				
	Permit Requirement	*****	*****		01DAMN	*****	01DAMX				
	QL	*****	*****		*****	*****	*****				
pH 00400 7 Intake From Stream	Sample	*****	*****	*****	7.6	*****	8.2	SU	0	1 Week	GRAB
	Measurement				REPORT 01DAMN	*****	REPORT 01DAMX				
	Permit Requirement	*****	*****		*****	*****	*****				
	QL	*****	*****		*****	*****	*****				
LC50 Statre 96hr Acu Cyprinodon TAN6A 1 Effluent Gross Value	Sample	*****	*****	*****	CODE=N Not Required			WEFL	0	2 Year	COMPOS
	Measurement				REPORT 01DAMN	*****	*****				
	Permit Requirement	*****	*****		*****	*****	*****				
	AL	*****	*****		*****	*****	*****				
Chlorine Produced Oxidants *CPOX 1 Effluent Gross Value 1	Sample	*****	*****	*****	CODE=N Not Required			MG/L	0	3 Week	GRAB
	Measurement				*****	0.3	0.5				
	Permit Requirement	*****	*****		*****	01MOAV	01DAMX				
	QL	*****	*****		*****	*****	*****				
Chlorine Produced Oxidants *CPOX 1 Effluent Gross Value 2	Sample	*****	*****	*****	*****	<0.1	<0.1	MG/L	0	3 Week	GRAB
	Measurement				*****	REPORT 01MOAV	0.2				
	Permit Requirement	*****	*****		*****	*****	01DAMX				
	QL	*****	*****		*****	*****	*****				
Temperature, oC 00010 1 Effluent Gross Value	Sample	*****	*****	*****	*****	15.3	20.7	DEG.C	0	1 Day	CONTIN
	Measurement				*****	REPORT 01MOAV	REPORT 01DAMX				
	Permit Requirement	*****	*****		*****	*****	*****				
	QL	*****	*****		*****	*****	*****				
Lab Certification # 99999 99 Lab	Sample	06003	PA051	*****	17327			*****	0	Not Applic	NOT AP
	Measurement				REPORT Lab #	REPORT Lab #	REPORT Lab #				
	Permit Requirement	*****	*****		*****	*****	*****				
	QL	*****	*****		*****	*****	*****				



State of New Jersey
Department of Environmental Protection
Surface Water Discharge Monitoring Report

PI: 46814

Shell Generation Date: 10/1/2017

PSEG NUCLEAR LLC SALEM GENERATING STATION - NJ0005622 - 482A SW Outfall 482A - 12/01/2017 - 12/31/2017

Permittee:

PSE&G NUCLEAR LLC
80 PARK PLAZA

NEWARK, NJ 07101

Location of Activity:

PSEG NUCLEAR LLC SALEM GENERATING STATION
ALLOWAY CREEK NECK RD

HANCOCKS BRIDGE, NJ 08038

Report Recipient:

PSEG NUCLEAR LLC
PO BOX 236/N21

HANCOCKS BRIDGE, NJ 08038

NJPDES Permit Number: NJ0005622
Monitoring Period: 12/01/2017 To 12/31/2017
Monitored Location: 482A SW Outfall 482A
Monitored Location Group:
Region / County: Southern / Salem

Check if Applicable: ☐ No Discharge This Monitoring Period

Monitoring Report Comments:

Please refer all permit related questions regarding this monitoring report form to your permit writer. Your permit writer's name and telephone number can be found on the cover letter of your permit. Questions about the electronic submission of this report may be referred to the Office of Permit Management at (609)984-4428.



State of New Jersey
Department of Environmental Protection

Surface Water Discharge Monitoring Report

PI: 46814

Shell Generation Date: 10/1/2017

PSEG NUCLEAR LLC SALEM GENERATING STATION - NJ0005622 - 482A SW Outfall 482A - 12/01/2017 - 12/31/2017

Discharge Monitoring Data:

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No Ex.	Frequency of Analysis	Sample Type
Flow, In Conduit or Thru Treatment Plant 50050 1 Effluent Gross Value	Sample Measurement	467	480	MGD					0	1 Day	CALCTD
	Permit Requirement	REPORT 01MOAV	REPORT 01DAMX							1/Day	CALCTD
	QL										
pH 00400 1 Effluent Gross Value	Sample Measurement				7.6		7.8	SU	0	1 Week	GRAB
	Permit Requirement				8.0 01DAMN		9.0 01DAMX			1/Week	GRAB
	QL										
pH 00400 7 Intake From Stream	Sample Measurement				7.6		8.2	SU	0	1 Week	GRAB
	Permit Requirement				REPORT 01DAMN		REPORT 01DAMX			1/Week	GRAB
	QL										
LC50 Statre 96hr Acu Cyprinodon TANGA 1 Effluent Gross Value	Sample Measurement				CODE=N Not Required			%EFFL	0	2 Year	COMPOS
	Permit Requirement				REPORT 01DAMN					2/Year	COMPOS
	QL				50						
Chlorine Produced Oxidants *CPOX 1 Effluent Gross Value 1	Sample Measurement				CODE=N Not Required			MG/L	0	3 Week	GRAB
	Permit Requirement					0.3 01MOAV	0.5 01DAMX			3/Week	GRAB
	QL										
Chlorine Produced Oxidants *CPOX 1 Effluent Gross Value 2	Sample Measurement					<0.1	<0.1	MG/L	0	3 Week	GRAB
	Permit Requirement					REPORT 01MOAV	0.2 01DAMX			3/Week	GRAB
	QL										
Temperature, °C 00010 1 Effluent Gross Value	Sample Measurement					14.9	22.0	DEG.C	0	1 Day	CONTIN
	Permit Requirement					REPORT 01MOAV	REPORT 01DAMX			1/Day	CONTIN
	QL										
Lab Certification # 99999 99 Lab	Sample Measurement	06003	PA051		17327				0	Not Applic	NOT AP
	Permit Requirement	REPORT Lab #	REPORT Lab #		REPORT Lab #	REPORT Lab #	REPORT Lab #			Not Applic	NOT AP
	QL										



State of New Jersey
Department of Environmental Protection
Surface Water Discharge Monitoring Report

PI: 46814

Shell Generation Date: 10/1/2017

PSEG NUCLEAR LLC SALEM GENERATING STATION - NJ0005622 - 483A SW Outfall 483A - 12/01/2017 - 12/31/2017

Permittee:

PSEG NUCLEAR LLC
80 PARK PLAZA

NEWARK, NJ 07101

Location of Activity:

PSEG NUCLEAR LLC SALEM GENERATING STATION
ALLOWAY CREEK NECK RD

HANCOCKS BRIDGE, NJ 08038

Report Recipient:

PSEG NUCLEAR LLC
PO BOX 236/N21

HANCOCKS BRIDGE, NJ 08038

NJPDES Permit Number: NJ0005622
Monitoring Period: 12/01/2017 To 12/31/2017
Monitored Location: 483A SW Outfall 483A
Monitored Location Group:
Region / County: Southern / Salem

Check if Applicable: ☐ No Discharge This Monitoring Period

Monitoring Report Comments:

Please refer all permit related questions regarding this monitoring report form to your permit writer. Your permit writer's name and telephone number can be found on the cover letter of your permit. Questions about the electronic submission of this report may be referred to the Office of Permit Management at (609)984-4428.



State of New Jersey
Department of Environmental Protection

Surface Water Discharge Monitoring Report

PI: 46814

Shell Generation Date: 10/1/2017

PSEG NUCLEAR LLC SALEM GENERATING STATION - NJ0005622 - 483A SW Outfall 483A - 12/01/2017 - 12/31/2017

Discharge Monitoring Data:											
Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No Ex.	Frequency of Analysis	Sample Type
Flow, In Conduit or Thru Treatment Plant 50050 1 Effluent Gross Value	Sample Measurement	462	481	MGD	*****	*****	*****	*****	0	1 Day	CALCTD
	Permit Requirement	REPORT 01MOAV	REPORT 01DAMX		*****	*****	*****				
	QL	*****	*****		*****	*****	*****				
pH 00400 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	7.6	*****	7.7	SU	0	1 Week	GRAB
	Permit Requirement	*****	*****		6.0 01DAMN	*****	9.0 01DAMX				
	QL	*****	*****		*****	*****	*****				
pH 00400 7 Intake From Stream	Sample Measurement	*****	*****	*****	7.6	*****	8.2	SU	0	1 Week	GRAB
	Permit Requirement	*****	*****		REPORT 01DAMN	*****	REPORT 01DAMX				
	QL	*****	*****		*****	*****	*****				
Chlorine Produced Oxidants *CPOX 1 Effluent Gross Value 1	Sample Measurement	*****	*****	*****	CODE=N Not Required=N Not Required			MG/L	0	3 Week	GRAB
	Permit Requirement	*****	*****		*****	0.3 01MOAV	0.8 01DAMX				
	QL	*****	*****		*****	*****	*****				
Chlorine Produced Oxidants *CPOX 1 Effluent Gross Value 2	Sample Measurement	*****	*****	*****	*****	<0.1	<0.1	MG/L	0	3 Week	GRAB
	Permit Requirement	*****	*****		*****	REPORT 01MOAV	0.2 01DAMX				
	QL	*****	*****		*****	*****	*****				
Temperature, oC 00010 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	15.0	20.8	CEG.C	0	1 Day	CONTIN
	Permit Requirement	*****	*****		*****	REPORT 01MOAV	REPORT 01DAMX				
	QL	*****	*****		*****	*****	*****				
Lab Certification # 99999 99 Lab	Sample Measurement	06003	PA051	*****	17327	*****	*****	*****	0	Not Applic	NOT AP
	Permit Requirement	REPORT Lab #	REPORT Lab #		REPORT Lab #	REPORT Lab #	REPORT Lab #				
	QL	*****	*****		*****	*****	*****				



State of New Jersey
Department of Environmental Protection
Surface Water Discharge Monitoring Report

PI: 46814

Shell Generation Date: 10/1/2017

PSEG NUCLEAR LLC SALEM GENERATING STATION - NJ0005622 - 484A SW Outfall 484A - 12/01/2017 - 12/31/2017

Permittee:

PSEG NUCLEAR LLC
80 PARK PLAZA

NEWARK, NJ 07101

Location of Activity:

PSEG NUCLEAR LLC SALEM GENERATING STATION
ALLOWAY CREEK NECK RD

HANCOCKS BRIDGE, NJ 08038

Report Recipient:

PSEG NUCLEAR LLC
PO BOX 236/N21

HANCOCKS BRIDGE, NJ 08038

NJPDES Permit Number: NJ0005622
Monitoring Period: 12/01/2017 To 12/31/2017
Monitored Location: 484A SW Outfall 484A
Monitored Location Group:
Region / County: Southern / Salem

Check if Applicable: ☐ No Discharge This Monitoring Period

Monitoring Report Comments:

Please refer all permit related questions regarding this monitoring report form to your permit writer. Your permit writer's name and telephone number can be found on the cover letter of your permit. Questions about the electronic submission of this report may be referred to the Office of Permit Management at (609)984-4428.



State of New Jersey
Department of Environmental Protection

Surface Water Discharge Monitoring Report

PI: 46814

Shell Generation Date: 10/1/2017

PSEG NUCLEAR LLC SALEM GENERATING STATION - NJ0005622 - 484A SW Outfall 484A - 12/01/2017 - 12/31/2017

Discharge Monitoring Data:

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No Ex.	Frequency of Analysis	Sample Type
Flow, In Conduit or Thru Treatment Plant 50050 1 Effluent Gross Value	Sample Measurement	449	494	MGD	7.6	7.7			0	1 Day	CALCTD
	Permit Requirement	REPORT 01MOAV	REPORT 01DAMX								
	QL									1/Day	CALCTD
pH 00400 1 Effluent Gross Value	Sample Measurement				7.6	7.7		SU	0	1 Week	GRAB
	Permit Requirement				6.0 01DAMN	9.0 01DAMX				1/Week	GRAB
	QL										
pH 00400 7 Intake From Stream	Sample Measurement				7.6	8.2		SU	0	1 Week	GRAB
	Permit Requirement				REPORT 01DAMN	REPORT 01DAMX				1/Week	GRAB
	QL										
LC50 Statre 96hr Acu Cyprinodon TAN6A 1 Effluent Gross Value	Sample Measurement			CODE=N	Not Required			%EFFL	0	2 Year	COMPOS
	Permit Requirement				REPORT 01DAMN						
	QL				50					2/Year	COMPOS
Chlorine Produced Oxidants *CPOX 1 Effluent Gross Value 1	Sample Measurement				CODE=N Not Required			MG/L	0	3 Week	GRAB
	Permit Requirement				0.3 01MOAV	0.5 01DAMX				3/Week	GRAB
	QL										
Chlorine Produced Oxidants *CPOX 1 Effluent Gross Value 2	Sample Measurement				<0.1	<0.1		MG/L	0	3 Week	GRAB
	Permit Requirement				REPORT 01MOAV	0.2 01DAMX				3/Week	GRAB
	QL										
Temperature, °C 00010 1 Effluent Gross Value	Sample Measurement				15.6	23.4		DEG.C	0	1 Day	CONTIN
	Permit Requirement				REPORT 01MOAV	REPORT 01DAMX				1/Day	CONTIN
	QL										
Lab Certification # 99999 99 Lab	Sample Measurement	08003	PA051		17327				0	Not Applic	NOT AP
	Permit Requirement	REPORT Lab #	REPORT Lab #		REPORT Lab #	REPORT Lab #	REPORT Lab #			Not Applic	NOT AP
	QL										



State of New Jersey
Department of Environmental Protection

Surface Water Discharge Monitoring Report

PI: 46814

Shell Generation Date: 10/1/2017

PSEG NUCLEAR LLC SALEM GENERATING STATION - NJ0005622 - 485A SW Outfall 485A - 12/01/2017 - 12/31/2017

Permittee:

PSE&G NUCLEAR LLC
80 PARK PLAZA

NEWARK, NJ 07101

Location of Activity:

PSEG NUCLEAR LLC SALEM GENERATING STATION
ALLOWAY CREEK NECK RD

HANCOCKS BRIDGE, NJ 08038

Report Recipient:

PSEG NUCLEAR LLC
PO BOX 236/N21

HANCOCKS BRIDGE, NJ 08038

NJPDES Permit Number: NJ0005622
Monitoring Period: 12/01/2017 To 12/31/2017
Monitored Location: 485A SW Outfall 485A
Monitored Location Group:
Region / County: Southern / Salem

Check if Applicable: ☐ No Discharge This Monitoring Period

Monitoring Report Comments:

Please refer all permit related questions regarding this monitoring report form to your permit writer. Your permit writer's name and telephone number can be found on the cover letter of your permit. Questions about the electronic submission of this report may be referred to the Office of Permit Management at (609)984-4428.



State of New Jersey
Department of Environmental Protection

Surface Water Discharge Monitoring Report

Pi: 46614

Shell Generation Date: 10/1/2017

PSEG NUCLEAR LLC SALEM GENERATING STATION - NJ0005622 - 485A SW Outfall 485A - 12/01/2017 - 12/31/2017

Discharge Monitoring Data:											
Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No Ex.	Frequency of Analysis	Sample Type
Flow, In Conduit or Thru Treatment Plant 50050 1 Effluent Gross Value	Sample Measurement	477	492	MGD	*****	*****	*****	*****	0	1 Day	CALCTD
	Permit Requirement	REPORT	REPORT		*****	*****	*****				
	Requirement	01MOAV	01DAMX		*****	*****	*****				
	QL	*****	*****		*****	*****	*****				
pH 00400 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	7.5	*****	7.5	SU	0	1 Week	GRAB
	Permit Requirement	*****	*****		8.0	*****	9.0				
	Requirement	*****	*****		01DAMN	*****	01DAMX				
	QL	*****	*****		*****	*****	*****				
pH 00400 7 Intake From Stream	Sample Measurement	*****	*****	*****	7.6	*****	8.2	SU	0	1 Week	GRAB
	Permit Requirement	*****	*****		REPORT	*****	REPORT				
	Requirement	*****	*****		01DAMN	*****	01DAMX				
	QL	*****	*****		*****	*****	*****				
LC50 Statre 96hr Acu Cyprinodon TANGA 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	CODE=N Not Required			%EFFL	0	2 Year	COMPOS
	Permit Requirement	*****	*****		REPORT	*****	*****				
	Requirement	*****	*****		01DAMN	*****	*****				
	QL	*****	*****		50	*****	*****				
Chlorine Produced Oxidants *CPOX 1 Effluent Gross Value 1	Sample Measurement	*****	*****	*****	CODE=N Not Required			MG/L	0	3 Week	GRAB
	Permit Requirement	*****	*****		*****	0.3	0.5				
	Requirement	*****	*****		*****	01MOAV	01DAMX				
	QL	*****	*****		*****	*****	*****				
Chlorine Produced Oxidants *CPOX 1 Effluent Gross Value 2	Sample Measurement	*****	*****	*****	*****	<0.1	<0.1	MG/L	0	3 Week	GRAB
	Permit Requirement	*****	*****		*****	REPORT	0.2				
	Requirement	*****	*****		*****	01MOAV	01DAMX				
	QL	*****	*****		*****	*****	*****				
Temperature, °C 00010 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	15.1	20.2	DEG.C	0	1 Day	CONTIN
	Permit Requirement	*****	*****		*****	REPORT	REPORT				
	Requirement	*****	*****		*****	01MOAV	01DAMX				
	QL	*****	*****		*****	*****	*****				
Lab Certification # 99999 99 Lab	Sample Measurement	06003	PA051	*****	17327	*****	*****	*****	0	Not Applic	NOT AP
	Permit Requirement	REPORT	REPORT		REPORT	REPORT	REPORT				
	Requirement	Lab #	Lab #		Lab #	Lab #	Lab #				
	QL	*****	*****		*****	*****	*****				



State of New Jersey
Department of Environmental Protection

Surface Water Discharge Monitoring Report

PI: 46814

Shell Generation Date: 10/1/2017

PSEG NUCLEAR LLC SALEM GENERATING STATION - NJ0005622 - 486A SW Outfall 486A - 12/01/2017 - 12/31/2017

Permittee:

PSEG NUCLEAR LLC
80 PARK PLAZA

NEWARK, NJ 07101

Location of Activity:

PSEG NUCLEAR LLC SALEM GENERATING STATION
ALLOWAY CREEK NECK RD

HANCOCKS BRIDGE, NJ 08038

Report Recipient:

PSEG NUCLEAR LLC
PO BOX 236/N21

HANCOCKS BRIDGE, NJ 08038

NJPDES Permit Number: NJ0005622
Monitoring Period: 12/01/2017 To 12/31/2017
Monitored Location: 486A SW Outfall 486A
Monitored Location Group:
Region / County: Southern / Salem

Check if Applicable: ☐ No Discharge This Monitoring Period

Monitoring Report Comments:

Please refer all permit related questions regarding this monitoring report form to your permit writer. Your permit writer's name and telephone number can be found on the cover letter of your permit. Questions about the electronic submission of this report may be referred to the Office of Permit Management at (609)984-4428.



State of New Jersey
Department of Environmental Protection

Surface Water Discharge Monitoring Report

PI: 46814

Shell Generation Date: 10/1/2017

PSEG NUCLEAR LLC SALEM GENERATING STATION - NJ0005622 - 486A SW Outfall 486A - 12/01/2017 - 12/31/2017

Discharge Monitoring Data:											
Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No Ex.	Frequency of Analysis	Sample Type
Flow, In Conduit or Thru Treatment Plant 50050 G Raw Sew/Influent	Sample Measurement	69.6	80.4	MGD	*****	*****	*****	*****	0	1 Day	CALCTD
	Permit Requirement	REPORT	REPORT		*****	*****	*****				
	01MOAV	01DAMX	*****		*****	*****					
	QL	*****	*****		*****	*****	*****				
Flow, In Conduit or Thru Treatment Plant 50050 1 Effluent Gross Value	Sample Measurement	461	488	MGD	*****	*****	*****	*****	0	1 Day	CALCTD
	Permit Requirement	REPORT	REPORT		*****	*****	*****				
	01MOAV	01DAMX	*****		*****	*****					
	QL	*****	*****		*****	*****	*****				
pH 00400 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	7.5	*****	7.7	SU	0	1 Week	GRAB
	Permit Requirement	*****	*****		6.0	*****	9.0				
	01DAMN	*****	*****		01DAMN	*****	01DAMX				
	QL	*****	*****		*****	*****	*****				
pH 00400 7 Intake From Stream	Sample Measurement	*****	*****	*****	7.6	*****	8.2	SU	0	1 Week	GRAB
	Permit Requirement	*****	*****		REPORT	*****	REPORT				
	01DAMN	*****	*****		01DAMN	*****	01DAMX				
	QL	*****	*****		*****	*****	*****				
Chlorine Produced Oxidants *CPOX 1 Effluent Gross Value 1	Sample Measurement	*****	*****	*****	CODE=N Not Required=N Not Required			MG/L	0	3 Week	GRAB
	Permit Requirement	*****	*****		*****	0.3	0.5				
	01MOAV	*****	*****		*****	01MOAV	01DAMX				
	QL	*****	*****		*****	*****	*****				
Chlorine Produced Oxidants *CPOX 1 Effluent Gross Value 2	Sample Measurement	*****	*****	*****	*****	<0.1	<0.1	MG/L	0	3 Week	GRAB
	Permit Requirement	*****	*****		*****	REPORT	0.2				
	01MOAV	*****	*****		*****	01MOAV	01DAMX				
	QL	*****	*****		*****	*****	*****				
Temperature, oC 00010 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	15.9	19.9	DEG.C	0	1 Day	CONTIN
	Permit Requirement	*****	*****		*****	REPORT	REPORT				
	01MOAV	*****	*****		*****	01MOAV	01DAMX				
	QL	*****	*****		*****	*****	*****				
Lab Certification # 99999 99 Lab	Sample Measurement	06003	PA051	*****	17327	*****	*****	*****	0	Not Applic	NOT AP
	Permit Requirement	REPORT	REPORT		REPORT	REPORT	REPORT				
	Lab #	*****	*****		*****	*****	*****				
	QL	*****	*****		*****	*****	*****				



State of New Jersey
Department of Environmental Protection
Surface Water Discharge Monitoring Report

Pt: 46814
Shell Generation Date: 10/1/2017

PSEG NUCLEAR LLC SALEM GENERATING STATION - NJ0005622 - 487B SW Outfall 487B - 12/01/2017 - 12/31/2017

Permittee:

PSEG NUCLEAR LLC
80 PARK PLAZA

NEWARK, NJ 07101

Location of Activity:

PSEG NUCLEAR LLC SALEM GENERATING STATION
ALLOWAY CREEK NECK RD

HANCOCKS BRIDGE, NJ 08038

Report Recipient:

PSEG NUCLEAR LLC
PO BOX 236/N21

HANCOCKS BRIDGE, NJ 08038

NJPDES Permit Number: NJ0005622
Monitoring Period: 12/01/2017 To 12/31/2017
Monitored Location: 487B SW Outfall 487B
Monitored Location Group:
Region / County: Southern / Salem

Check if Applicable: ☒ No Discharge This Monitoring Period

Monitoring Report Comments:

Please refer all permit related questions regarding this monitoring report form to your permit writer. Your permit writer's name and telephone number can be found on the cover letter of your permit. Questions about the electronic submission of this report may be referred to the Office of Permit Management at (609)984-4428.



State of New Jersey
Department of Environmental Protection
Surface Water Discharge Monitoring Report

Pl: 46814
Shell Generation Date: 10/1/2017

PSEG NUCLEAR LLC SALEM GENERATING STATION - NJ0005622 - 489A SW Outfall 489A - 12/01/2017 - 12/31/2017

Permittee:
PSEG NUCLEAR LLC
80 PARK PLAZA

NEWARK, NJ 07101

Location of Activity:
PSEG NUCLEAR LLC SALEM GENERATING STATION
ALLOWAY CREEK NECK RD

HANCOCKS BRIDGE, NJ 08038

Report Recipient:
PSEG NUCLEAR LLC
PO BOX 236/N21

HANCOCKS BRIDGE, NJ 08038

NJPDES Permit Number: NJ0005622
Monitoring Period: 12/01/2017 To 12/31/2017
Monitored Location: 489A SW Outfall 489A
Monitored Location Group:
Region / County: Southern / Salem

Check if Applicable: ☐ No Discharge This Monitoring Period

Monitoring Report Comments:

Flow in conduit or thru treatment plant, Effluent Gross value for outfall 489A has been estimated due to failure of pump run time meter. The estimate is based on previous pump run times and associated rain fall amounts for previous monitoring periods

Please refer all permit related questions regarding this monitoring report form to your permit writer. Your permit writer's name and telephone number can be found on the cover letter of your permit. Questions about the electronic submission of this report may be referred to the Office of Permit Management at (609)984-4428.



State of New Jersey
Department of Environmental Protection

Surface Water Discharge Monitoring Report

PI: 46814

Shell Generation Date: 10/1/2017

PSEG NUCLEAR LLC SALEM GENERATING STATION - NJ0005622 - 489A SW Outfall 489A - 12/01/2017 - 12/31/2017

Discharge Monitoring Data:											
Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No Ex.	Frequency of Analysis	Sample Type
Flow, In Conduit or Thru Treatment Plant 50050 1 Effluent Gross Value	Sample Measurement	0.0101	0.0101	MGD	****	****	****	****	0	1 Month	CALCTD
	Permit Requirement	REPORT 01MOAV	REPORT 01DAMX		****	****	****			1/Month	CALCTD
	QL	*****	*****		*****	*****	*****				
pH 00400 1 Effluent Gross Value	Sample Measurement	****	****	****	7.1	****	7.1	SU	0	1 Month	GRAB
	Permit Requirement	****	****		6.0 01DAMN	****	9.0 01DAMX			1/Month	GRAB
	QL	*****	*****		*****	*****	*****				
Solids, Total Suspended 00530 1 Effluent Gross Value	Sample Measurement	****	****	****	3	3	****	MG/L	0	1 Month	GRAB
	Permit Requirement	****	****		100 01DAMX	30 01MOAV	****			1/Month	GRAB
	QL	*****	*****		*****	*****	*****				
Petroleum Hydrocarbons 00551 1 Effluent Gross Value	Sample Measurement	****	****	****	****	<5	<5	MG/L	0	1 Month	GRAB
	Permit Requirement	****	****		****	10 01MOAV	15 01DAMX			1/Month	GRAB
	QL	*****	*****		*****	*****	*****				
Carbon, Tot Organic (TOC) 00680 1 Effluent Gross Value	Sample Measurement	****	****	****	****	3	3	MG/L	0	1 Month	GRAB
	Permit Requirement	****	****		****	REPORT 01MOAV	50 01DAMX			1/Month	GRAB
	QL	*****	*****		*****	*****	*****				
Lab Certification # 99999 99 Lab	Sample Measurement	06003	PA051		17327				0	Not Applic	NOT AP
	Permit Requirement	REPORT Lab #	REPORT Lab #		REPORT Lab #	REPORT Lab #	REPORT Lab #			Not Applic	NOT AP
	QL	*****	*****		*****	*****	*****				



State of New Jersey
Department of Environmental Protection

Surface Water Discharge Waste Characterization Report

PI: 46814

Shell Generation Date: 7/1/2017

PSEG NUCLEAR LLC SALEM GENERATING STATION - NJ0005622 - 048C SW Outfall 48C - 08/01/2017 - 01/31/2018

Permittee:

PSE&G NUCLEAR LLC
80 PARK PLAZA

NEWARK, NJ 07101

Location of Activity:

PSEG NUCLEAR LLC SALEM GENERATING STATION
ALLOWAY CREEK NECK RD

HANCOCKS BRIDGE, NJ 08038

Report Recipient:

PSEG NUCLEAR LLC
PO BOX 236/N21

HANCOCKS BRIDGE, NJ 08038

NJPDES Permit Number: NJ0005622
Monitoring Period: 08/01/2017 To 01/31/2018
Monitored Location: 048C SW Outfall 48C
Monitored Location Group: N/A
Region / County: Southern / Salem

Check if Applicable: ☐ No Discharge This Monitoring Period

Monitoring Report Comments:

2 sets of samples were taken for volatile organics during the monitoring period. The first set, taken on 12/6/2017 and the second set on 12/21/2017. Results from the two sets have been averaged together, and reported on the WCR form.

Please refer all permit related questions regarding this monitoring report form to your permit writer. Your permit writer's name and telephone number can be found on the cover letter of your permit. Questions about the electronic submission of this report may be referred to the Office of Permit Management at (609)984-4428.

LR-E14-0064



Dated: **APR 10 2014**

Certified Mail, Return Receipt Requested
Article Number: 7012 2210 0001 2339 3167

Dr. Najjar
Delaware River Basin Commission
P.O. Box 7360
West Trenton, NJ 08628

RE: PSEG Nuclear, LLC
Water Allocation Permit 2216P
Activity Number WAP090001
First Quarter 2014

Dear Dr. Najjar:

The attached first quarter 2014 Private Water Diversion Report for the standby wells (PW-2, PW-3), the production wells (PW-5, PW-6, HC-1, HC-2, PC-1, LDC-1) and the observation wells (Well 6, Well G, Well H and Well J) has been submitted for PSEG Nuclear, LLC. This report was submitted to NJDEP electronically in accordance with the requirements of the Water Allocation Permit.

We also submitted a request to NJDEP Bureau of Water Allocation & Permitting to remove observation well I from the permit requirements, since it is in an area that constantly floods and prohibits obtaining the static water level and chloride samples.

Should you have any questions or require further information, please do not hesitate to contact Tanya Timberman at (856) 339-1426, Tanya.Timberman@pseg.com.

Sincerely,

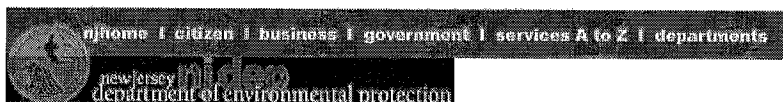
A handwritten signature in cursive script that reads "Helen Gregory".

Helen Gregory
Environmental Compliance Manager – Nuclear

Enclosures (1) – 1st Quarter 2014 Water Diversion Report

bcc:

Chemistry Manager – Salem
Chemistry Manager – Hope Creek
Records Management

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Version: 5.3

2216P

Currently logged in: Tanya Timberman (PSEG ENVIRONMENTAL)SALEM AND HOPE CREEK GENERATING STATION Help / Logout

SERVICE SUMMARY[Printer Friendly Version](#)**Section A: Facility Profile**

Facility ID: 2216P
Facility Name: SALEM AND HOPE CREEK GENERATING STATION
County: Salem
Facility Location: END OF ALLOWAY CREEK NECK RD
Hancocks Bridge, NJ 080380236
Mailing Address: P O BOX 236 M/C S07
Hancocks Bridge, NJ 080380236

Section B: Certification

I certify under penalty of law in accordance with N.J.S.A. 58:1A-5(b) that the information submitted is accurate and complete.

General: Helen Gregory
Certification Date: 04/11/2014
User ID: 34012
Mailing Address:
Phone: 8563391341 (Work Phone Number)
E-Mail: Helen.Gregory@pseg.com

Section C: Submission Name

Submission/Project Name: Submit Private Quarterly Monitoring Report 01/01/2014 - 03/31/2014 2216P WAP120001

Comments:**Section D: Additional Information****Service ID:** 383151

Are you required to measure static water level?
Yes

How do you primarily measure static water level?
Multiple Methods

Which two methods are primarily used?
Tape and Fixed Transducer

How is your diversion measured?
Totalizing flow meters

Section E: Agricultural Information

N/A

Section F: Quarterly Monitoring Results**Monitoring Period:** 01/01/2014 - 03/31/2014**Activity Code:** WAP120001**NJDEP Preprint ID:** 95119

Subject Item	Parameter	Required Frequency	Report Value in Units of	January		February		March		Row Comments
				Quantity/Result	Sample Date	Quantity/Result	Sample Date	Quantity/Result	Sample Date	
WSWL68671 - 3400000757, WELL PW- 2 (STANDBY)	Water Diverted	Each Month	Million Gallons	0		0		0		
WSWL68672 - 3400000758, WELL PW-3 (STANDBY)	Water Diverted	Each Month	Million Gallons	0		0		0		
WSWL68678 - 3400001031, WELL PW- 5	Water Diverted	Each Month	Million Gallons	6.924		2.882		7.928		
WSWL68679 - 3400001073, WELL HC-1	Water Diverted	Each Month	Million Gallons	4.473		2.957		3.169		
WSWL68680 - 3400001074, WELL HC-2	Water Diverted	Each Month	Million Gallons	1.959		1.187		1.324		
WSWL68698 - 3400001512, WELL PW- 6	Water Diverted	Each Month	Million Gallons	0.203		5.563		0		
WSWL989902 - E201208059, WELL PC-1	Water Diverted	Each Month	Million Gallons	0.0119		0.0136		0.0169		
WSWL989903 - E201208058, WELL LDC-1	Water Diverted	Each Month	Million Gallons	0.1098		0.0111		0.1229		
WSWL68671 - 3400000757, WELL PW- 2 (STANDBY)	Static Water Level	Each Month	Feet	11.8	1/17/14	12.3	2/6/14	11.5	3/13/14	
WSWL68672 - 3400000758, WELL PW-3 (STANDBY)	Static Water Level	Each Month	Feet	10.7	1/17/14	12.6	2/6/14	11.9	3/13/14	
WSWL68678 - 3400001031, WELL PW- 5	Static Water Level	Each Month	Feet	90.4	1/24/14	77.2	2/6/14	79.3	3/26/14	
WSWL68679 - 3400001073, WELL HC-1	Static Water Level	Each Month	Feet	83	1/10/14	76	2/27/14	76	3/6/14	
WSWL68680 - 3400001074, WELL HC-2	Static Water Level	Each Month	Feet	50	1/15/14	85	2/28/14	88	3/27/14	
WSWL68698 - 3400001512, WELL PW- 6	Static Water Level	Each Month	Feet	59.4	1/17/14	69.0	2/19/14	60.5	3/13/14	
WSWL78997 - 3400004055, WELL J (OBSERVATION)	Static Water Level	Each Month	Feet	91.4	1/17/14	76.0	2/6/14	69.0	3/19/14	
WSWL78998 - 3400001511, WELL 6 (OBSERVATION)	Static Water Level	Each Month	Feet	59.4	1/17/14	70.0	2/19/14	61.0	3/13/14	
WSWL78999 - 3400001011, WELL I (OBSERVATION)	Static Water Level	Each Month	Feet	77.9	1/31/14					No static water levels for February or March due to the area being

										flooding.
WSWL79000 - 3400000970, WELL G (OBSERVATION)	Static Water Level	Each Month	Feet	16.2	1/17/14	16.2	2/6/14	17.0	3/19/14	
WSWL989902 - E201208059, WELL PC-1	Static Water Level	Each Month	Feet	10.7	1/17/14	10.7	2/19/14	9.1	3/12/14	
WSWL68678 - 3400001031, WELL PW- 5	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		21.8	3/13/14	
WSWL68679 - 3400001073, WELL HC-1	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		4.08	3/4/14	
WSWL68680 - 3400001074, WELL HC-2	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		4.75	3/4/14	
WSWL68698 - 3400001512, WELL PW- 6	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		203	3/25/14	
WSWL78997 - 3400004055, WELL J (OBSERVATION)	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		36.2	3/19/14	
WSWL78999 - 3400001011, WELL I (OBSERVATION)	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD				No chloride sample for March due to the area being flooding.
WSWL79000 - 3400000970, WELL G (OBSERVATION)	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		1700	3/13/14	
WSWL989902 - E201208059, WELL PC-1	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		26.4	3/12/14	

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 Department of Environmental Protection
 P. O. Box 402
 Trenton, NJ 08625-0402

Last Updated: June 24, 2004



LR-E15-0040

Dated: APR 27 2015

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
ARTICLE NUMBER: 7013 2630 0002 2575 3257

Dr. K. Najjar, Branch Manager
Planning and Information Technology
Delaware River Basin Commission
P.O. Box 7360
West Trenton, NJ 08628

RE: PSEG NUCLEAR, LLC
WATER ALLOCATION PERMIT 2216P
ACTIVITY NUMBER WAP130001
FIRST QUARTER 2015

Dear Dr. Najjar:

The attached first quarter 2015 Private Water Diversion Report for the standby well (PW-2), the production wells (PW-5, PW-6, HC-1, HC-2, PC-1, LDC-1) and the observation wells (Well 6, Well G, Well I and Well J) has been submitted for PSEG Nuclear, LLC. This report was submitted to NJDEP electronically in accordance with the requirements of the Water Allocation Permit.

Should you have any questions or require further information, please do not hesitate to contact Christopher White at (856) 339-3301, or christopher.white@pseg.com.

Sincerely,

A handwritten signature in cursive script that reads "Helen Gregory".

Helen Gregory
Environmental Compliance Manager – Nuclear

Enclosures (1) – 1st Quarter 2015 Water Diversion Report –WAP130001

APR 27 2015

bcc:

Chemistry Manager – Salem
Chemistry Manager – Hope Creek
Records Management

SERVICE SUMMARY**Section A: Facility Profile**

Facility ID: 2216P
Facility Name SALEM AND HOPE CREEK GENERATING STATION
County: Salem
Facility Location: END OF ALLOWAY CREEK NECK RD
Hancocks Bridge, NJ 080380236
Mailing Address: P O BOX 236 M/C S07
Hancocks Bridge, NJ 080380236

Section B: Certification

I certify under penalty of law in accordance with N.J.S.A. 58:1A-5(b) that the information submitted is accurate and complete.

General: Helen Gregory
Certification Date: 04/27/2015
User ID: 34012
Mailing Address:
Phone: 8563391341 (Work Phone Number)
E-Mail: Helen.Gregory@pseg.com

Section C: Submission Name

Submission/Project Name:
Submit Private Quarterly Monitoring Report 01/01/2015 - 03/31/2015 2216P WAP130001
Comments:

Section D: Additional Information

Service ID: 498196

Are you required to measure static water level?
Yes

How do you primarily measure static water level?
Multiple Methods

Which two methods are primarily used?
Air-line and gage and Tape

How is your diversion measured?
Totalizing flow meters

Section E: Agricultural Information

N/A

Section F: Quarterly Monitoring Results

Monitoring Period:
01/01/2015 - 03/31/2015

Activity Code: WAP130001

NJDEP Preprint ID: 101123

				January		February		March		
Subject Item	Parameter	Required Frequency	Report Value in Units of	Quantity/ Result	Sample Date	Quantity/ Result	Sample Date	Quantity/ Result	Sample Date	Row Comments
WSWL68671 - 3400000757, WELL PW- 2 (STANDBY)	Water Diverted	Each Month	Million Gallons	0		0.0001		0		
WSWL68678 - 3400001031, WELL PW- 5	Water Diverted	Each Month	Million Gallons	6.756		4.867		12.892		
WSWL68679 - 3400001073, WELL HC-1	Water Diverted	Each Month	Million Gallons	3.618		1.796		2.277		
WSWL68680 - 3400001074, WELL HC-2	Water Diverted	Each Month	Million Gallons	1.829		2.260		1.913		
WSWL68698 - 3400001512, WELL PW- 6	Water Diverted	Each Month	Million Gallons	1.709		3.496		0.248		
WSWL989902 - E201208059, WELL PC-1	Water Diverted	Each Month	Million Gallons	0.0124		0.0106		0.0274		
WSWL989903 - E201208058, WELL LDC-1	Water Diverted	Each Month	Million Gallons	0.1349		0.1289		0.1181		
WSWL68671 - 3400000757, WELL PW- 2 (STANDBY)	Static Water Level	Each Month	Feet	11.9	1/20/15	12.9	2/23/15	10.6	3/9/15	
WSWL68678 - 3400001031, WELL PW- 5	Static Water Level	Each Month	Feet	80.3	1/22/15	75.2	2/3/15	84.4	3/12/15	
WSWL68679 - 3400001073, WELL HC-1	Static Water Level	Each Month	Feet	87	1/8/15	75	2/10/15	83	3/3/15	
WSWL68680 - 3400001074, WELL HC-2	Static Water Level	Each Month	Feet	89	1/7/15	78	2/3/15	93	3/10/15	2nd static 86', 3/26/15
WSWL68698 - 3400001512, WELL PW- 6	Static Water Level	Each Month	Feet	62.7	1/9/15	63.7	2/23/15	60.6	3/9/15	
WSWL78997 - 3400004055, WELL J (OBSERVATION)	Static Water Level	Each Month	Feet	87.3	1/20/15	84.7	2/23/15	89.7	3/12/15	
WSWL78998 - 3400001511, WELL 6 (OBSERVATION)	Static Water Level	Each Month	Feet	63.4	1/9/15	64.0	2/23/15	61.2	3/9/15	
WSWL79000 - 3400000970,		Each Month	Feet	16.9	1/20/15	17.4	2/23/15	18.3	3/12/15	

				January		February		March		
Subject Item	Parameter	Required Frequency	Report Value in Units of	Quantity/ Result	Sample Date	Quantity/ Result	Sample Date	Quantity/ Result	Sample Date	Row Comments
WELL G (OBSERVATION)	Static Water Level									
WSWL989902 - E201208059, WELL PC-1	Static Water Level	Each Month	Feet	11.5	1/20/15	11.7	2/23/15	11.6	3/12/15	
WSWL68678 - 3400001031, WELL PW- 5	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		24.1	3/11/15	
WSWL68679 - 3400001073, WELL HC-1	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		4.85	3/11/15	
WSWL68680 - 3400001074, WELL HC-2	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		4.77	3/11/15	
WSWL68698 - 3400001512, WELL PW- 6	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		238	3/12/15	
WSWL78997 - 3400004055, WELL J (OBSERVATION)	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		38	3/12/15	
WSWL79000 - 3400000970, WELL G (OBSERVATION)	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		12200	3/12/15	Additional samples obtained
WSWL989902 - E201208059, WELL PC-1	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		25.8	3/11/15	

Form Comments:

Well G additional Cl samples: 2/11/2015 11:30 4860 2/11/2015 12:00 3860 2/11/2015 12:30 2150 2/11/2015 13:00 1910

Water Allocation Quarterly Report Data
2015

Station	Well	Quarter	Depth (ft)	Depth Date	Diversion (MG)	Chloride (ppm)	Chloride Date (Mar, June, Sept, Dec)	Notes
Salem	PW-2	1st	11.9	1/20/2015	0	N/A		
			12.9	2/23/2015	0.0001	673	2/11/2015	Sampled to compare to "G"
			10.6	3/9/2015	0	N/A		PW2 Cl
		2nd				N/A		
						N/A		
						N/A		
		3rd				N/A		
						N/A		
						N/A		
		4th				N/A		
						N/A		
						N/A		

Salem	PW-3	1st	NA	NA	0	N/A		
			NA	NA	0	N/A		
			NA	NA	0	N/A		
		2nd	NA	NA	0	N/A		
			NA	NA	0	N/A		
			NA	NA	0	N/A		Well Closed
		3rd	NA	NA	0	N/A		
			NA	NA	0	N/A		
			NA	NA	0	N/A		
		4th	NA	NA	0	N/A		
			NA	NA	0	N/A		
			NA	NA	0	N/A		

Salem	PW-5	1st	80.3	1/22/2015	6.756	N/A		
			75.2	2/3/2015	4.867	N/A		
			84.4	3/12/2015	12.892	24.1	3/11/2015	
		2nd				N/A		
						N/A		
		3rd				N/A		
						N/A		
		4th				N/A		
						N/A		

Salem	PW-6	1st	62.7	1/9/2015	1.709	N/A		
			63.7	2/23/2015	3.496	N/A		
			60.6	3/9/2015	0.248	238	3/12/2015	
		2nd				N/A		
						N/A		
		3rd				N/A		
						N/A		

Water Allocation Quarterly Report Data
2015

Station	Well	Quarter	Depth (ft)	Depth Date	Diversion (MG)	Chloride (ppm)	Chloride Date (Mar, June, Sept, Dec)	Notes
		4th				N/A		
						N/A		
Salem	OW-J	1st	87.3	1/20/2015	NA	N/A		
			84.7	2/23/2015	NA	N/A		
			89.7	3/12/2015	NA	38	3/12/2015	
		2nd			NA	N/A		
					NA	N/A		
					NA			
		3rd			NA	N/A		
					NA	N/A		
					NA			
		4th			NA	N/A		
					NA	N/A		
					NA			
Salem	OW-6	1st	63.4	1/9/2015	NA	N/A		
			64.0	2/23/2015	NA	N/A		
			61.2	3/9/2015	NA	N/A		
		2nd			NA	N/A		
					NA	N/A		
					NA	N/A		
		3rd			NA	N/A		
					NA	N/A		
					NA	N/A		
		4th			NA	N/A		
					NA	N/A		
					NA	N/A		
Salem	OW-I	1st				N/A		**Removed from Permit
						N/A		**Removed from Permit
						N/A		**Removed from Permit
		2nd				N/A		**Removed from Permit
						N/A		**Removed from Permit
						N/A		**Removed from Permit
		3rd				N/A		**Removed from Permit
						N/A		**Removed from Permit
						N/A		**Removed from Permit
		4th				N/A		**Removed from Permit
						N/A		**Removed from Permit
						N/A		**Removed from Permit
Salem	OW-G	1st	16.9	1/20/2015	NA	N/A		
			17.4	2/23/2015	NA	N/A		
			18.3	3/12/2015	NA	12200	3/12/2015	
		2nd			NA	N/A		
					NA	N/A		

Water Allocation Quarterly Report Data
2015

Station	Well	Quarter	Depth (ft)	Depth Date	Diversion (MG)	Chloride (ppm)	Chloride Date (Mar, June, Sept, Dec)	Notes
		3rd			NA			
					NA	N/A		
					NA	N/A		
		4th			NA			
					NA	N/A		
					NA	N/A		
					NA			

Salem	PC-1	1st	11.5	1/20/2015	0.0124	N/A		
			11.7	2/23/2015	0.0106	N/A		
			11.6	3/12/2015	0.0274	25.8	3/11/2015	
		2nd				N/A		
						N/A		
		3rd				N/A		
						N/A		
		4th				N/A		
						N/A		

Hope Creek	HC-1	1st	87	1/8/2015	3.618	4.21	1/7/2015	
			75	2/10/2015	1.796	4.1	2/4/2015	NO3 <0.0814, 2/4/15
			83	3/3/2015	2.277	4.85	3/11/2015	
		2nd						
		3rd						
		4th						

Hope Creek	HC-2	1st	89	1/7/2015	1.829	4.82	1/9/2015	
			78	2/3/2015	2.26	5.33	2/4/2015	NO3 <0.0814, 2/4/15
			93	3/10/2015	1.913	4.77	3/11/2015	
		2nd						
		3rd						
		4th						

Water Allocation Quarterly Report Data
2015

Station	Well	Quarter	Depth (ft)	Depth Date	Diversion (MG)	Chloride (ppm)	Chloride Date (Mar, June, Sept, Dec)	Notes
Hope Creek	LDC-1	1st	N/A	N/A	0.1349	N/A		
			N/A	N/A	0.1289	N/A		
			N/A	N/A	0.1181	N/A		
		2nd	N/A	N/A		N/A		
			N/A	N/A		N/A		
			N/A	N/A		N/A		
		3rd	N/A	N/A		N/A		
			N/A	N/A		N/A		
			N/A	N/A		N/A		
		4th	N/A	N/A		N/A		
			N/A	N/A		N/A		
			N/A	N/A		N/A		

HOPE CREEK DIVERSION CALCULATIONS 2014

WELL HC-1
(gallons)

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
START ft3	161,585,000	569,000	2,365,000	4,642,000	0	0	0	0	0	0	0	0
STOP ft3	165,203,000	2,365,000	4,642,000	4,642,000	0	0	0	0	0	0	0	0
DIVERSION (old)	2,706	1,343	1,703	-3,472	0	0	0	0	0	0	0	0
X1000 Gallons	3.618	1.796	2.277	-4.642	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

WELL HC-2
(ft³)

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
START ft3	4,173,800	4,418,300	4,720,500	4,976,300	0	0	0	0	0	0	0	0
STOP ft3	4,418,300	4,720,500	4,976,300	4,976,300	0	0	0	0	0	0	0	0
DIVERSION (MG)	1.829	2.260	1.913	-37.223	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000

WELL LDC-1
(gallons)

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
START	2,960,108	3,095,012	3,223,868	3,341,972	0	0	0	0	0	0	0	0
STOP	3,095,012	3,223,868	3,341,972	3,341,972	0	0	0	0	0	0	0	0
DIVERSION (MG)	0.1349	0.1289	0.1181	-3.3420	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

* 1-22 new meter

164634
161585
3049 0.569
569
3.618

SALEM DIVERSION CALCULATIONS

2014

WELL PW-2

(x100 gallons)

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
START	9,000	9,000	9,000	9	0	0	0	0	9	0	9	9
STOP	9,000	9,000	10,000									0
DIVERSION	0 ✓	0 ✓	1 ✓	0	0	0	0	0	0	0	0	0

WELL PW-3

(x100 gallons)

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
START	0	0	0	0	0	0	0	0	0	0	0	0
STOP	0	0	0	0	0	0	0	0	0	0	0	0
DIVERSION	0	0	0	0	0	0	0	0	0	0	0	0

WELL PW-5

(x100 gallons)

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
START	57,462,100	64,217,700	69,085,000 ✓	81,976,700	0	0	0	0	0	0	0	0
STOP	64,217,700 ✓	69,085,000 ✓	81,976,700 ✓									
DIVERSION (MG)	6,756 ✓	4,867 ✓	12,892 ✓	-81,977	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SALEM DIVERSION CALCULATIONS 2014

WELL PW-6

(x100 gallons)

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
START	61,476,700	63,185,200	66,681,600	66,930,000	0	0	0	0	0	0	0	0
STOP	63,185,200	66,681,600	66,930,000	66,930,000	0	0	0	0	0	0	0	0
DIVERSION (MG)	1.709	3.496	0.248	-66.930	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

WELL PC-1

(gallons)

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
START	494,961	507,340	517,936	545,368	0	0	0	0	0	0	0	0
STOP	507,340	517,936	545,368	545,368	0	0	0	0	0	0	0	0
DIVERSION (MG)	0.0124	0.0106	0.0274	-0.5454	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

JAN

FEB

MAR

APR

MAY

JUN

JUL

AUG

SEP

OCT

NOV

DEC

PW-2	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PW-3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PW-5	6.756	4.867	12.892	-81.977	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
PW-6	1.709	3.496	0.248	-66.930	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
PC-1	0.012	0.011	0.027	-0.545	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
HC-1	3.618	1.796	2.277	-4.642	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
HC-2	1.829	2.260	1.913	-37.223	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LDC-1	0.135	0.129	0.118	-3.342	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

QUARTERLY SUMMARY OF DIVERSION (Million Gallons)												
*must not exceed 43.2 million gallons per month												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1ST QTR	14	13	18									
2ND QTR				-195	0	0						
3RD QTR							0	0	0	0		
4TH QTR										0	0	0

MONTHLY TOTAL DIVERSION FOR FL LINK (Million Gallons)

14	13	18	-195	0	0	0	0	0	0	0	0	0
----	----	----	------	---	---	---	---	---	---	---	---	---

Total Diversion (mpy) =	-150
-------------------------------	------

FORM 3
(Page 1 of 2)
ENVIRONMENTAL CHECKLIST - MONTHLY

Month: Jan

Year: 2015

DAY	NRLWDS Discharge Integrator Counts (Daily)	SYSTEM (Monthly Frequency) Recommended Sample Week(s)	TOC	TSS	TPH	Ammonia	pH	Temp
			Maximum HOLD Time					
			28 days	7 days	7 days	28 days	15 Min	N/A
1	5735		SAMPLE/SHIPPING DATES (Normally Wednesday of suggested Week)					
2	18627	NRW (2 samples per Month) 1 - By end of 1 st FULL Week 2 - By end of 2 nd FULL Week	1/7	1/7	1/7	1/7	N/A	N/A
3	27406		1/7	1/7	1/7	1/7	N/A	N/A
4	20538		1/21	1/21	1/21	1/21	N/A	N/A
5	315		1/21	1/21	1/21	1/21	N/A	N/A
6	34204	NRW - TIER 2 (1 sample per Month) By end of 1 st FULL Week [Tier 2 = Duplicate Sample]	1/7	1/7	1/7	1/7	N/A	N/A
7	79038		1/7	1/7	1/7	1/7	N/A	N/A
8	3780		N/A	N/A	N/A	N/A	N/A	N/A
9	53058		N/A	N/A	N/A	N/A	N/A	N/A
10	24276	OWS (1 sample per Month) By end of 1 st FULL Week Duplicate pH req'd IAW SC.CH-CA.ZZ-0382	1/14/15	1/14/15	1/14/15	N/A	1/14/15	1/14/15
11	31231		1/14/15	1/14/15	1/14/15	N/A	1/14/15	1/14/15
12	26396	#3 SKIM TANK (As needed**) Duplicate pH & temp. samples are required for EACH discharge	N/A	N/A	N/A	N/A	N/A	N/A °C
13	31796		N/A	N/A	N/A	N/A	N/A	N/A °C
14	0		N/A	N/A	N/A	N/A	N/A	N/A °C
15	33076							
16	25304	WELL DEPTHS and INTEGRATOR READINGS						
17	24911	WELL ID	DEPTH and DATE (Monthly) By end of 3 rd Full Week*	Integrator Reading (Weekly) Normally Monday of every week				
18	22824			Week 1	Week 2	Week 3	Week 4	Week 5
19	24311	PW-2	11.9 / 1/20	9	9	9	9	N/A
20	22791	PW-5	80.3 / 1/22	578786	606916	623953	642177	N/A
21	25406	PW-6	62.7 / 1/9	619234	629052	629052	631852	N/A
22	30973	OW-6	63.4 / 1/9	N/A	N/A	N/A	N/A	N/A
23	25577	OW-G	16.9 / 1/20	N/A	N/A	N/A	N/A	N/A
24	31153	OW-J	87.3 / 1/20	N/A	N/A	N/A	N/A	N/A
25	22417	PC-1	11.5 / 1/20	498779	500651.4	522952	547340	N/A
26	22000	Weekly Integrator readings are typically performed every Monday but shall be taken by Friday of each week. Integrator readings shall be taken on, or as close to the end of the month. If no 5 th Friday in Month, "N/A" Week 5.						
27	17000	505178.8						
28	55648							
29	23823							
30	27599							
31	26027							

FORM 3
(Page 1 of 2)
ENVIRONMENTAL CHECKLIST - MONTHLY

Month: Feb.

Year: 2015

DAY	NRLWDS Discharge Integrator Counts (Daily)	SYSTEM (Monthly Frequency) Recommended Sample Week(s)	TOC	TSS	TPH	Ammonia	pH	Temp
			Maximum HOLD Time					
			28 days	7 days	7 days	28 days	15 Min	N/A
1	39890		SAMPLE/SHIPPING DATES (Normally Wednesday of suggested Week)					
2	16521	NRW (2 samples per Month) 1 - By end of 1 st FULL Week 2 - By end of 2 nd FULL Week	2/4/15	2/4/15	2/4/15	2/4/15	N/A	N/A
3	32425		2/4/15	2/4/15	2/4/15	2/4/15	N/A	N/A
4	34577		2/11/15	2/11/15	2/11/15	2/11/15	N/A	N/A
5	240		2/11/15	2/11/15	2/11/15	2/11/15	N/A	N/A
6	18960	NRW - TIER 2 (1 sample per Month) By end of 1 st FULL Week [Tier 2 = Duplicate Sample]	2/4/15	2/4/15	2/4/15	2/4/15	N/A	N/A
7	20115		2/4/15	2/4/15	2/4/15	2/4/15	N/A	N/A
8	19362		N/A	N/A	N/A	N/A	N/A	N/A
9	18758		N/A	N/A	N/A	N/A	N/A	N/A
10	37700	OWS (1 sample per Month) By end of 1 st FULL Week Duplicate pH req'd IAW SC.CH-CA.ZZ-0382	2/4/15	2/4/15	2/4/15	N/A	2/4/15	2/4/15
11	20412		2/4/15	2/4/15	2/4/15		N/A	N/A
12	26783	#3 SKIM TANK (As needed**) Duplicate pH & temp. samples are required for EACH discharge					N/A	N/A
13	23248						N/A	N/A
14	1175						N/A	N/A
15	24976						N/A	N/A
16	26270	WELL DEPTHS and INTEGRATOR READINGS						
17	22858	WELL ID	DEPTH and DATE (Monthly) By end of 3 rd Full Week*	Integrator Reading (Weekly) Normally Monday of every week				
18	24785			Week 1 2/2	Week 2 2/9	Week 3 2/16	Week 4 2/23	Week 5
19	23823	PW-2	12.9 / 2/23/15	9	9	9	9	N/A
20	37527	PW-5	75.2 / 2-3-15	654165	654165	671279	690085	N/A
21	23005	PW-6	63.7 / 2/23/15	638876	644373	666816	666816	N/A
22	31248	OW-6	64.0 / 2/23/15	N/A	N/A	N/A	N/A	N/A
23	26948	OW-G	17.4 / 2/23/15	N/A	N/A	N/A	N/A	N/A
24	26279	OW-J	84.7 / 2/23/15	N/A	N/A	N/A	N/A	N/A
25	48053	PC-1	11.7 / 2/23/15	510185	512807.6	515215.1	517935.9	N/A
26	41702	Weekly Integrator readings are typically performed every Monday, but shall be taken by Friday of each week. Integrator readings shall be taken on, or as close to the end of the month. If no 5 th Friday in Month, "N/A" Week 5.						
27	38406							
28	40300							
29								
30								
31								

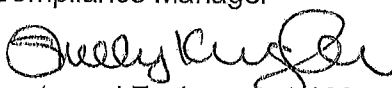
FORM 3
(Page 1 of 2)

ENVIRONMENTAL CHECKLIST - MONTHLY

Month: MarchYear: 2015

DAY	NRLWDS Discharge Integrator Counts (Daily)	SYSTEM (Monthly Frequency) Recommended Sample Week(s)	TOC	TSS	TPH	Ammonia	pH	Temp
			Maximum HOLD Time					
			28 days	7 days	7 days	28 days	15 Min	N/A
1	49584		SAMPLE/SHIPPING DATES (Normally Wednesday of suggested Week)					
2	51368	NRW (2 samples per Month) 1 - By end of 1 st FULL Week 2 - By end of 2 nd FULL Week	3/11	3/11	3/11	3/11	N/A	N/A
3	48083		3/11	3/11	3/11	3/11	N/A	N/A
4	39779		3/18	3/18	3/18	3/18	N/A	N/A
5	50525		3/18	3/18	3/18	3/18	N/A	N/A
6	45893	NRW - TIER 2 (1 sample per Month) By end of 1 st FULL Week [Tier 2 = Duplicate Sample]	3/11	3/11	3/11	3/11	N/A	N/A
7	29239		3/11	3/11	3/11	3/11	N/A	N/A
8	27364		N/A	N/A	N/A	N/A	N/A	N/A
9	27592		N/A	N/A	N/A	N/A	N/A	N/A
10	18792	OWS (1 sample per Month) By end of 1 st FULL Week Duplicate pH req'd IAW SC.CH-CA.ZZ-0382	3/4	3/4	3/4	N/A	3/4	3/4
11	24291		3/4	3/4	3/4		N/A	N/A
12	25160	#3 SKIM TANK (As needed**) Duplicate pH & temp. samples are required for EACH discharge						°C
13	20925							°C
14	28908							°C
15	25660							°C
16	24255	WELL DEPTHS and INTEGRATOR READINGS						
17	5650	WELL ID	DEPTH and DATE (Monthly) By end of 3 rd Full Week*	Integrator Reading (Weekly) Normally Monday of every week				
18	43135			Week 1	Week 2	Week 3	Week 4	Week 5
19	32575							
20	31535	PW-2	10.6 13/9/15	10	10	10	10	10
21	56915	PW-5	84.4 13/12/15	721825	757484	773573	797954	819767
22	19400	PW-6	60.6 13/9/15	666816	666816	669300	669300	669300
23	19910	OW-6	61.2 13/9/15	N/A	N/A	N/A	N/A	N/A
24	41049	OW-G	18.3 13/12/15	N/A	N/A	N/A	N/A	N/A
25	28555	OW-J	89.7 13/12/15	N/A	N/A	N/A	N/A	N/A
26	34691	PC-1	11.16 13/12/15	521963	525970	531829	537902	545368
27	38493	Weekly Integrator readings are typically performed every Monday, but <u>shall</u> be taken by Friday of each week. Integrator readings <u>shall</u> be taken on, or as close to the end of the month. If no 5 th Friday in Month, "N/A" Week 5.						
28	34180							
29	53011							
30	26714							
31	81519							

TO: Helen Gregory
Environmental Compliance Manager

FROM: Shelly Kugler 
Chemistry Radwaste and Environmental Manager - Hope Creek

SUBJECT: SUBSURFACE WATER DIVERSION REPORT
FIRST QUARTER 2015 DATA

DATE: April 11, 2015

Enclosed please find the Subsurface Water Transmittals for January, February and March of 2015. This information is being transmitted for use in preparation of the First Quarter Subsurface Water Diversion Report for Hope Creek Generating Station.

Should you have any questions, please contact Geoffrey Zeiger at (856) 339-2080.

Enclosures

C NJPDES Technician
Chem File HCH-2015-014
T. Zigo
C. White
G. Zeiger

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(PAGE 1 OF 1)

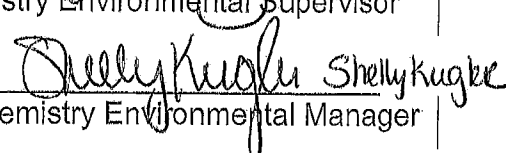
SUBSURFACE WATER DIVERSION TRANSMITTAL

January 2015

DAY	WELL # 1 (3401073)			WELL # 2 (3401074)		
	Flowmeter X100 (Ft ³)	Chloride (PPM)	Level (Ft)	Flowmeter X1000 (Gal)	Chloride (PPM)	Level (Ft)
1	161674			41801		
2	161812			41843		
3						
4						
5	162121			42094		
6	162279			42151		
7	162662	<5.00	(D) 86'	42174		(S) 89'
8	162724		(S) 87'	42256		(D) 93'
9	162855			42369	<5.00	
10						
11						
12	163093			42537		
13	163240			42675		
14	163300			42869		
15	163451			42976		
16	163556			42999		
17						
18						
19	163990			43219		
20	164260			43336		
21	164555			43399		
22	164634			43453		
23	Note 1	Work order	#30195450	43522		
24	Now reads					
25	Gal. x 1000					
26	145			43805		
27	219			43923		
28	333			43959		
29	433			44060		
30	504			44109		
31	569			44183		

Note 1: Well #1 flow meter C/T; replaced with new.

Approved: 
Chemistry Environmental Supervisor


Approved: 
Chemistry Environmental Manager

FORM - 1
(PAGE 1 OF 1)

SUBSURFACE WATER DIVERSION TRANSMITTAL

February 2015

DAY	WELL # 1 (3401073)			WELL # 2 (3401074)		
	Flowmeter X1000 (Gal.)	Chloride (PPM)	Level (Ft)	Flowmeter X1000 (Gal)	Chloride (PPM)	Level (Ft)
1	614			44234		
2	675			44292		
3	784		(D) 76'	44358		(S) 78'
4	855	<5.00		44464	5.33	
5	908			44517		
6 *	956			44580		
7						
8						
9	1153			44815		
10	1162		(S) 75'	45068		(D) 81'
11	1216			45219		
12	1281			45326		
13	1331			45385		
14						
15						
16	1526			45704		
17	1570			45743		
18	1720			45843		
19	1781			45912		
20				46036		
21						
22						
23	2076			46331		
24	2134			46642		
25	2167			46879		
26	2257			47010		
27	2347			47130		
28	2365			47205		
29						
30						
31						

Approved: - 
Chemistry Environmental Supervisor

Approved: 
Chemistry Environmental Manager

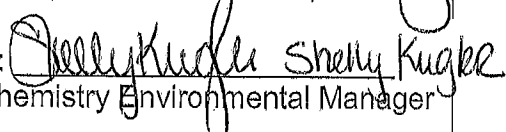
FORM - 1
(PAGE 1 OF 1)

SUBSURFACE WATER DIVERSION TRANSMITTAL

March 2015

DAY	WELL # 1 (3401073)			WELL # 2 (3401074)		
	Flowmeter X1000 (Gal.)	Chloride (PPM)	Level (Ft)	Flowmeter X1000 (Gal)	Chloride (PPM)	Level (Ft)
1						
2	2510			47305		
3	2622		(S) 83'	47382		(D) 86'
4	2682			47416		
5	2757			47616		
6	2816			47671		
7	2909			47793		
8	2958			47856		
9	3010			47907		
10	3028		(D) 94'	48004		(S) 93'
11	3109	<5.00		48206	<5.00	
12	3163			48256		
13	3216			48319		
14	3261			48360		
15				48385		
16	3439			48570		
17	3533			48684		
18	3709			48791		
19	3770			48842		
20	3822			48905		
21						
22						
23	4007			49101		
24	4075			49173		
25	4227			49256		
26	4310		(D) 87'	49277		(S) 86'
27	4379			49539		
28						
29						
30	4552			49539		
31	4642			49763		

Approved: 
Chemistry Environmental Supervisor

Approved: 
Chemistry Environmental Manager

LDC Well#1 readings1st Qtr. 2015

	<u>Jan-15</u>
1-Jan	2960108
2-Jan	2962752
3-Jan	
4-Jan	
5-Jan	
6-Jan	2976851
7-Jan	2980933
8-Jan	
9-Jan	
10-Jan	
11-Jan	
12-Jan	
13-Jan	3004670
14-Jan	3016381
15-Jan	3022779
16-Jan	
17-Jan	
18-Jan	
19-Jan	
20-Jan	
21-Jan	
22-Jan	3050103
23-Jan	3057278
24-Jan	
25-Jan	
26-Jan	
27-Jan	
28-Jan	3080833
29-Jan	3083723
30-Jan	3092362
31-Jan	<u>3095012</u>

	<u>Feb-15</u>
1-Feb	3095012
2-Feb	3100519
3-Feb	3106407
4-Feb	3115374
5-Feb	3118303
6-Feb	3124245
7-Feb	
8-Feb	
9-Feb	3131634
10-Feb	3137681
11-Feb	3143439
12-Feb	3149170
13-Feb	3157823
14-Feb	
15-Feb	
16-Feb	
17-Feb	
18-Feb	
19-Feb	
20-Feb	
21-Feb	
22-Feb	
23-Feb	3190458
24-Feb	3196285
25-Feb	
26-Feb	3215569
27-Feb	3221261
28-Feb	3223868

	<u>Mar-15</u>
1-Mar	
2-Mar	3227006
3-Mar	3232937
4-Mar	
5-Mar	3244413
6-Mar	3247419
7-Mar	
8-Mar	
9-Mar	3253271
10-Mar	
11-Mar	
12-Mar	3270827
13-Mar	3273659
14-Mar	
15-Mar	
16-Mar	
17-Mar	
18-Mar	
19-Mar	3298796
20-Mar	3303814
21-Mar	
22-Mar	
23-Mar	
24-Mar	3313061
25-Mar	
26-Mar	
27-Mar	
28-Mar	
29-Mar	
30-Mar	
31-Mar	3341972

Readings are in Gallons

Jan. total=	134903.2
Feb. total=	128856.7
Mar. total=	118103.8
1st qtr tot=	<u>381863.7</u>

**Attachment 2
Verification Completion Form
Page 1 of 1**

Verification Documentation

Correspondence/Letter number: LR-E15-0040 Origination Date: 04/24/15

Agency/External Stakeholder: DRBC Submittal Due Date: 04/30/15

Recipient of Correspondence: Dr. K. Najjar, Branch Manager
(name and title if known)

Purpose of Submittal: 1st Quarter Water Allocation Report

Originating Office: ☐ Salem ☐ Hope Creek ☒ PSEG Nuclear Corporate

Preparer: Christopher E. White [Signature] 4/24/2015
(print) (sign) (date)

Peer Reviewer: Luis Carano [Signature] 4/27/15
(print) (sign) (date)

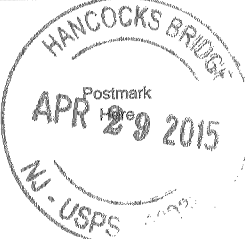
Certified Mail Return Receipt Requested: ☒ Yes ☐ No

Approvals (check box if applicable)

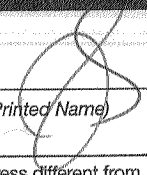
	Applicable	Date Review Needed	Signature of Reviewer	Date of Review
Site Departments				
Nuclear Environmental Affairs - Helen Gregory	<input checked="" type="checkbox"/>		<u>Helen Gregory</u>	<u>4/27/15</u>
Chemistry	<input type="checkbox"/>			
Operations	<input type="checkbox"/>			
Engineering	<input type="checkbox"/>			
Regulatory Assurance	<input type="checkbox"/>			
Corporate				
CFAM-	<input type="checkbox"/>			
Site Management				
Plant Manager	<input type="checkbox"/>			
Site Vice President	<input type="checkbox"/>			
Other:	<input type="checkbox"/>		<input type="checkbox"/> Report Signed and Approved	
Other:	<input type="checkbox"/>			

UR-ETS-0040

Tape Certified Mail Receipt here

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Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 7.19
	
Sent To	Dr. K. Najjar – Branch Manager
Street, Apt. No., or PO Box No.	Planning & Information Technology
City, State, ZIP+4	Delaware River Basin Commission
	PO Box 7360
	West Trenton, NJ 08628
PS Form 3800, A	

Tape Domestic Return Receipt here

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 		A. Signature 	
		<input type="checkbox"/> Agent <input type="checkbox"/> Addressee	
B. Received by (Printed Name) 		C. Date of Delivery 5/4/15	
D. Is delivery address different from item 1? If YES, enter delivery address below:		<input type="checkbox"/> Yes <input type="checkbox"/> No	
1. Article Addressed to: Dr. K. Najjar – Branch Manager Planning & Information Technology Delaware River Basin Commission PO Box 7360 West Trenton, NJ 08628		3. Service Type <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Priority Mail Express™ <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> Collect on Delivery	
2. Article Number (Transfer from service label)		4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes	
7013 2630 0002 2575 3257			
PS Form 3811, July 2013 Domestic Return Receipt			

SERVICE SUMMARY**Section A: Facility Profile**

Facility ID: 2216P
Facility Name SALEM AND HOPE CREEK GENERATING STATION
County: Salem
Facility Location: END OF ALLOWAY CREEK NECK RD
Hancocks Bridge, NJ 080380236
Mailing Address: P O BOX 236 M/C S07
Hancocks Bridge, NJ 080380236

Section B: Certification

I certify under penalty of law in accordance with N.J.S.A. 58:1A-5(b) that the information submitted is accurate and complete.

General: Helen Gregory
Certification Date: 04/22/2016
User ID: 34012
Mailing Address:
Phone: 8563391341 (Work Phone Number)
E-Mail: Helen.Gregory@pseg.com

Section C: Submission Name

Submission/Project Name:
Submit Private Quarterly Monitoring Report 01/01/2016 - 03/31/2016 2216P WAP130001
Comments:

Section D: Additional Information

Service ID: 591580

Are you required to measure static water level?
Yes

How do you primarily measure static water level?
Multiple Methods

Which two methods are primarily used?
Air-line and gage and Tape

How is your diversion measured?
Totalizing flow meters

Section E: Agricultural Information

N/A

Section F: Quarterly Monitoring Results
--

Monitoring Period:
01/01/2016 - 03/31/2016

Activity Code: WAP130001

NJDEP Preprint ID: 107191

Subject Item	Parameter	Required Frequency	Report Value in Units of	January		February		March		Row Comments
				Quantity/Result	Sample Date	Quantity/Result	Sample Date	Quantity/Result	Sample Date	
WSWL68671 - 3400000757, WELL PW- 2 (STANDBY)	Water Diverted	Each Month	Million Gallons	0		0		0		
WSWL68678 - 3400001031, WELL PW- 5	Water Diverted	Each Month	Million Gallons	2.905		3.384		9.111		
WSWL68679 - 3400001073, WELL HC-1	Water Diverted	Each Month	Million Gallons	0.138		1.260		1.818		
WSWL68680 - 3400001074, WELL HC-2	Water Diverted	Each Month	Million Gallons	4.329		2.664		2.385		
WSWL68698 - 3400001512, WELL PW- 6	Water Diverted	Each Month	Million Gallons	8.365		9.861		0.93		
WSWL989902 - E201208059, WELL PC-1	Water Diverted	Each Month	Million Gallons	0.0097		0.0136		0.0184		
WSWL989903 - E201208058, WELL LDC-1	Water Diverted	Each Month	Million Gallons	0.1216		0.1107		0.1234		
WSWL68671 - 3400000757, WELL PW- 2 (STANDBY)	Static Water Level	Each Month	Feet	12.5	1/21/16	11.2	2/19/16	10.9	3/1/16	
WSWL68678 - 3400001031, WELL PW- 5	Static Water Level	Each Month	Feet	81.5	1/21/16	71.1	2/10/16	78.8	3/22/16	
WSWL68679 - 3400001073, WELL HC-1	Static Water Level	Each Month	Feet	74	1/9/16	70	2/4/16	82	3/3/16	
WSWL68680 - 3400001074, WELL HC-2	Static Water Level	Each Month	Feet	80	1/28/16	88	2/25/16	90	3/24/16	
WSWL68698 - 3400001512, WELL PW- 6	Static Water Level	Each Month	Feet	69	1/21/16	81.4	2/21/16	69.1	3/1/16	
WSWL78997 - 3400004055, WELL J (OBSERVATION)	Static Water Level	Each Month	Feet	89.5	1/21/16	68.5	2/19/16	71.1	3/22/16	
WSWL78998 - 3400001511, WELL 6 (OBSERVATION)	Static Water Level	Each Month	Feet	69.2	1/21/16	81.9	2/21/16	69.3	3/1/16	
WSWL79000 - 3400000970,	Static Water Level	Each Month	Feet	15.6	1/21/16	16.7	2/19/16	16.7	3/9/16	

				January		February		March		
Subject Item	Parameter	Required Frequency	Report Value in Units of	Quantity/ Result	Sample Date	Quantity/ Result	Sample Date	Quantity/ Result	Sample Date	Row Comments
WELL G (OBSERVATION)										
WSWL989902 - E201208059, WELL PC-1	Static Water Level	Each Month	Feet	11.4	1/21/16	12.4	2/19/16	11.1	3/9/16	
WSWL68678 - 3400001031, WELL PW- 5	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		22.4	3/11/16	
WSWL68679 - 3400001073, WELL HC-1	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		3.69	3/2/16	
WSWL68680 - 3400001074, WELL HC-2	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		4.78	3/2/16	
WSWL68698 - 3400001512, WELL PW- 6	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		211	3/22/16	
WSWL78997 - 3400004055, WELL J (OBSERVATION)	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		34.1	3/22/16	
WSWL79000 - 3400000970, WELL G (OBSERVATION)	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		1260	3/9/16	
WSWL989902 - E201208059, WELL PC-1	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		25.5	3/8/16	

Form Comments:

SERVICE SUMMARY**Section A: Facility Profile**

Facility ID: 2216P
Facility Name: SALEM AND HOPE CREEK GENERATING STATION
County: Salem
Facility Location: END OF ALLOWAY CREEK NECK RD
Hancocks Bridge, NJ 080380236
Mailing Address: P O BOX 236 M/C S07
Hancocks Bridge, NJ 080380236

Section B: Certification

I certify under penalty of law in accordance with N.J.S.A. 58:1A-5(b) that the information submitted is accurate and complete.

General: Helen Gregory
Certification Date: 04/28/2017
User ID: 34012
Mailing Address:
Phone: 8563391341 (Work Phone Number)
E-Mail: Helen.Gregory@pseg.com

Section C: Submission Name

Submission/Project Name:
Submit Private Quarterly Monitoring Report 01/01/2017 - 03/31/2017 2216P WAP130001
Comments:

Section D: Additional Information

Service ID: 710499

Are you required to measure static water level?
Yes

How do you primarily measure static water level?
Air-line and gage

How is your diversion measured?
Totalizing flow meters

Section E: Agricultural Information

N/A

Section F: Quarterly Monitoring Results

Activity Code: WAP130001 **NJDEP Preprint ID:** 113093

Monitoring Period:

01/01/2017 - 03/31/2017

				January		February		March		
Subject Item	Parameter	Required Frequency	Report Value in Units of	Quantity/Result	Sample Date	Quantity/Result	Sample Date	Quantity/Result	Sample Date	Row Comments
WSWL68671 - 3400000757, WELL PW- 2 (STANDBY)	Water Diverted	Each Month	Million Gallons	0		0		0		
WSWL68678 - 3400001031, WELL PW- 5	Water Diverted	Each Month	Million Gallons	10.283		6.973		6.967		
WSWL68679 - 3400001073, WELL HC-1	Water Diverted	Each Month	Million Gallons	2.531		1.804		2.502		
WSWL68680 - 3400001074, WELL HC-2	Water Diverted	Each Month	Million Gallons	1.468		0.482		2.366		
WSWL68698 - 3400001512, WELL PW- 6	Water Diverted	Each Month	Million Gallons	0		2.125		2.648		
WSWL989902 - E201208059, WELL PC-1	Water Diverted	Each Month	Million Gallons	0.0117		0.0085		0.0139		
WSWL989903 - E201208058, WELL LDC-1	Water Diverted	Each Month	Million Gallons	0.1456		0.1145		0.1056		
WSWL68671 - 3400000757, WELL PW- 2 (STANDBY)	Static Water Level	Each Month	Feet	12.5	1/27/17	10.6	2/23/17	9.3	3/7/17	
WSWL68678 - 3400001031, WELL PW- 5	Static Water Level	Each Month	Feet	80.5	1/31/17	81.6	2/24/17	73.5	3/7/17	
WSWL68679 - 3400001073, WELL HC-1	Static Water Level	Each Month	Feet	92	1/5/17	82	2/2/17	86	3/2/17	
WSWL68680 - 3400001074, WELL HC-2	Static Water Level	Each Month	Feet	91	1/26/17	88	2/24/17	91	3/23/17	
WSWL68698 - 3400001512, WELL PW- 6	Static Water Level	Each Month	Feet	63.2	1/27/17	63.4	2/23/17	71.8	3/8/17	
WSWL78997 - 3400004055, WELL J (OBSERVATION)	Static Water Level	Each Month	Feet	81.9	1/27/17	83.3	2/23/17	72.6	3/7/16	
WSWL78998 - 3400001511, WELL 6 (OBSERVATION)	Static Water Level	Each Month	Feet	63.8	1/27/17	63.5	2/23/17	72.2	3/8/17	
WSWL79000 - 3400000970, WELL G (OBSERVATION)	Static Water Level	Each Month	Feet	17.1	1/27/17	17.6	2/23/17	17.8	3/7/17	
		Each Month	Feet	12.5	1/27/17	12.6	2/23/17	11.1	3/7/17	

				January		February		March		
Subject Item	Parameter	Required Frequency	Report Value in Units of	Quantity/ Result	Sample Date	Quantity/ Result	Sample Date	Quantity/ Result	Sample Date	Row Comments
WSWL989902 - E201208059, WELL PC-1	Static Water Level									
WSWL68678 - 3400001031, WELL PW- 5	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		25	3/20/17	
WSWL68679 - 3400001073, WELL HC-1	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		4	3/5/17	
WSWL68680 - 3400001074, WELL HC-2	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		5	3/5/17	
WSWL68698 - 3400001512, WELL PW- 6	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		200	3/20/17	
WSWL78997 - 3400004055, WELL J (OBSERVATION)	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		38.3	3/21/17	
WSWL79000 - 3400000970, WELL G (OBSERVATION)	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		1275	3/21/17	
WSWL989902 - E201208059, WELL PC-1	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		235	3/20/17	

Form Comments:

SERVICE SUMMARY**Section A: Facility Profile**

Facility ID: 2216P
Facility Name: SALEM AND HOPE CREEK GENERATING STATION
County: Salem
Facility Location: END OF ALLOWAY CREEK NECK RD
Hancocks Bridge, NJ 080380236
Mailing Address: P O BOX 236 M/C S07
Hancocks Bridge, NJ 080380236

Section B: Certification

I certify under penalty of law in accordance with N.J.S.A. 58:1A-5(b) that the information submitted is accurate and complete.

General: Helen Gregory
Certification Date: 04/30/2018
User ID: 34012
Mailing Address:
Phone: 8563391341 (Work Phone Number)
E-Mail: Helen.Gregory@pseg.com

Section C: Submission Name

Submission/Project Name:
Submit Private Quarterly Monitoring Report 01/01/2018 - 03/31/2018 2216P WAP130001
Comments:

Section D: Additional Information

Service ID: 811339

Are you required to measure static water level?
Yes

How do you primarily measure static water level?
Air-line and gage

How is your diversion measured?
Totalizing flow meters

Section E: Agricultural Information

N/A

Section F: Quarterly Monitoring Results

Monitoring Period: 01/01/2018 - 03/31/2018 **Activity Code:** WAP130001 **NJDEP Preprint ID:** 119045

				January		February		March		
Subject Item	Parameter	Required Frequency	Report Value in Units of	Quantity/Result	Sample Date	Quantity/Result	Sample Date	Quantity/Result	Sample Date	Row Comments

				January		February		March		
Subject Item	Parameter	Required Frequency	Report Value in Units of	Quantity/ Result	Sample Date	Quantity/ Result	Sample Date	Quantity/ Result	Sample Date	Row Comments
WSWL68671 - 3400000757, WELL PW- 2 (STANDBY)	Water Diverted	Each Month	Million Gallons	0		0		0		
WSWL68678 - 3400001031, WELL PW- 5	Water Diverted	Each Month	Million Gallons	3.774		0		1.037		
WSWL68679 - 3400001073, WELL HC-1	Water Diverted	Each Month	Million Gallons	1.926		2.161		3.266		
WSWL68680 - 3400001074, WELL HC-2	Water Diverted	Each Month	Million Gallons	0.032		0.021		2.826		
WSWL68698 - 3400001512, WELL PW- 6	Water Diverted	Each Month	Million Gallons	0.771		19.568		9.645		
WSWL989902 - E201208059, WELL PC-1	Water Diverted	Each Month	Million Gallons	0.0135		0.0134		0.0145		
WSWL989903 - E201208058, WELL LDC-1	Water Diverted	Each Month	Million Gallons	0.1339		0.0921		0.1021		
WSWL68671 - 3400000757, WELL PW- 2 (STANDBY)	Static Water Level	Each Month	Feet	11.7	01/22/2018	11.0	02/16/2018	12.0	03/27/2018	
WSWL68678 - 3400001031, WELL PW- 5	Static Water Level	Each Month	Feet	73.8	01/22/2018	70.8	02/16/2018	70.5	03/19/2018	
WSWL68679 - 3400001073, WELL HC-1	Static Water Level	Each Month	Feet	88	01/03/2018	74	02/01/2018	68	03/02/2018	
WSWL68680 - 3400001074, WELL HC-2	Static Water Level	Each Month	Feet	88	01/25/2018	73	02/22/2018	74	03/21/2018	
WSWL68698 - 3400001512, WELL PW- 6	Static Water Level	Each Month	Feet							Unable to measure static water level because well couldn't be removed from service.
WSWL78997 - 3400004055, WELL J (OBSERVATION)	Static Water Level	Each Month	Feet	72.2	01/22/2018	69.4	02/16/2018	77.5	03/26/2018	
WSWL78998 - 3400001511, WELL 6 (OBSERVATION)	Static Water Level	Each Month	Feet							Unable to measure static water level because well couldn't be removed from service.
WSWL79000 - 3400000970, WELL G (OBSERVATION)	Static Water Level	Each Month	Feet	17.0	01/22/2018	17.5	02/16/2018	17.2	03/26/2018	
			Feet	11.3	01/22/2018	10.8	02/16/2018	9.8	03/27/2018	

				January		February		March		
Subject Item	Parameter	Required Frequency	Report Value in Units of	Quantity/ Result	Sample Date	Quantity/ Result	Sample Date	Quantity/ Result	Sample Date	Row Comments
WSWL989902 - E201208059, WELL PC-1	Static Water Level	Each Month								
WSWL68678 - 3400001031, WELL PW- 5	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD				Unable to sample for chloride during the month due to well largely being out of service. The well had been returned to service between 3/23-3/26 but we could not sample because the well was chlorinated for disinfection purposes.
WSWL68679 - 3400001073, WELL HC-1	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		3.9	03/07/2018	
WSWL68680 - 3400001074, WELL HC-2	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		4.1	03/07/2018	
WSWL68698 - 3400001512, WELL PW- 6	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		220	03/21/2018	
WSWL78997 - 3400004055, WELL J (OBSERVATION)	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		35	03/27/2018	
WSWL79000 - 3400000970, WELL G (OBSERVATION)	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		1600	03/27/2018	
WSWL989902 - E201208059, WELL PC-1	Chloride	Quarterly in Mar; June; Sept; Dec	Milligrams per Liter	NOT REQD		NOT REQD		39	03/26/2018	

Form Comments:

January 29, 2014

Mr. Francis Steitz
Department of Environmental Protection
Division of Air Quality
Air Quality Permitting Program
Bureau of Air Permits
401 East State Street
Mail Code 401-02
PO Box 420
Trenton, New Jersey 08625-0420

RE: PSEG Fossil LLC
Submittal of Annual Report for Calendar Year 2013
N.J.A.C. 7:27-19.29(k) – HEDD

Dear Mr. Steitz:

PSEG Fossil LLC (PSEG Fossil) is pleased to submit the attached Annual Report for Calendar Year 2013 containing information required by New Jersey Administrative Code (N.J.A.C.) 7:27-19.29(k) relative to high electric demand days (HEDDs) in calendar year 2013. PSEG Fossil identified eight (8) HEDDs in 2013 using the methods prescribed in the rule. The HEDDs were:

June 2013

June 24, 2013
June 25, 2013

July 2013

July 5, 2013
July 14, 2013
July 15, 2013
July 16, 2013
July 17, 2013
July 18, 2013

PSEG Fossil achieved compliance with the provisions of N.J.A.C. 7:27-19.29(b)4 by complying with N.J.A.C. 7:27-19.29(b)(4)(ii) which reads:

“The Department-approved method of demonstrating in the 2009 Protocol that implementation of the 2009 Protocol on each high electric demand day that occurred starting January 1, 2005 through December 31, 2007 would have resulted in at least as many tons of NO_x emission reductions as would have been required by Equation 1 below. The owner or operator shall demonstrate that the owner or operator implemented the 2009 Protocol, or a modified protocol approved by the Department pursuant to (h) below, on each high electric demand day during the calendar year of the applicable annual report.”

PSEG Fossil has complied with all remaining sections of N.J.A.C. 7:27-19.29 pursuant to the filing of the attached Annual Report for Calendar Year 2013.

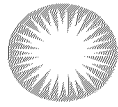
Should you have any questions or require additional information, please do not hesitate to contact me at (973) 430-6293.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard E. Modes".

Richard E. Modes
Environmental Coordinator

cc: Michael Hogan (NJDEP)



PSEG Fossil LLC

**Calendar Year 2013
High Electric Demand Day (HEDD)
2009-2014 Annual Report**

Submitted To:

**New Jersey Department of Environmental Protection
Division of Air Quality
Air Quality Permitting Element
Bureau of Air Permits**

January 2014

**SUBMITTED BY: PSEG FOSSIL LLC
80 PARK PLAZA, T25H
NEWARK, NEW JERSEY 07102**

Introduction

On August 4, 2008, the New Jersey Department of Environmental Protection (NJDEP or the Department) proposed new rules and amendments governing the control and prohibition of Volatile Organic Compounds (VOC) and Nitrogen Oxides (NO_x). On March 20, 2009, the rules were adopted and published in the New Jersey Register, became effective on April 20, 2009 and operative on May 19, 2009. These rules impact several source categories of emissions including stationary combustion turbines and boilers serving electric generating units that operate on high electric demand days (HEDDs). The Department regulates NO_x emissions from HEDD units, because these units can emit significant quantities of NO_x on HEDDs, which are typically high temperature and high ozone days during the summer.

Pursuant to New Jersey Administrative Code (N.J.A.C.) 7:27-19.1, HEDD means the day following a day in which the next day forecast load is estimated to have a peak value of 52,000 megawatts (MW) or higher as predicted by the Pennsylvania-Jersey-Maryland¹ (PJM) Interconnection 0815 update to its Mid Atlantic Region Hour Ending Integrated Forecast Load, available from PJM Interconnection at <http://oasis.pjm.com/doc/projload.txt>. N.J.A.C. 7:27-19.1 also defines a HEDD unit as an electrical generating unit, capable of generating 15 MW or more, that commenced operation prior to May 1, 2005, and that operated less than or equal to an average of 50 percent of the time during the ozone seasons of 2005 through 2007.

In 2013, PSEG Fossil LLC (PSEG Fossil) owned 26 HEDD units in the State of New Jersey. These 26 HEDD units were comprised of 99 combustion turbines and 4 boilers serving electric generating units (EGUs). Descriptive information on these HEDD units is provided in the tables below.

¹ Pennsylvania-New Jersey-Maryland Interconnection, LLC, is a regional transmission organization (RTO) that coordinates the movement of wholesale electricity in all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia. Acting neutrally and independently, PJM operates the world's largest competitive wholesale electricity market and ensures the reliability of the largest centrally dispatched grid in the world.

Combustion Turbine HEDD Units

Facility ID	Facility Name	Equipment ID	Unit No.	No. of Turbines	Fuel(s)	Model
02488	Bergen	E5	3	1	Natural Gas	P&W FT4
45979	Burlington	E4	8	1	Low Sulfur Distillate Oil	P&W FT4
		E5-E12	9	8	Low Sulfur Distillate Oil	P&W FT4
		E17-E24	11	8	Low Sulfur Distillate Oil	P&W FT4
		E36-E39	12	4	Natural Gas / Low Sulfur Distillate Oil	GE LM6000
17824	Edison	E1-E8	1	8	Natural Gas / Low Sulfur Distillate Oil	P&W FT4
		E9-E16	2	8	Natural Gas / Low Sulfur Distillate Oil	P&W FT4
		E17-E24	3	8	Natural Gas / Low Sulfur Distillate Oil	P&W FT4
07627	Essex	E1	9	1	Natural Gas / Low Sulfur Distillate Oil	GE 7EA
		E2-E9	10	8	Natural Gas / Low Sulfur Distillate Oil	P&W FT4
		E10-E17	11*	8	Natural Gas / Low Sulfur Distillate Oil	P&W FT4
		E18-E25	12*	8	Natural Gas / Low Sulfur Distillate Oil	P&W FT4
12200	Kearny	E4	9*	1	Natural Gas	P&W FT4
		E35-E38	12	4	Natural Gas / Low Sulfur Distillate Oil	GE LM6000
41810	Linden	E6	5	1	Natural Gas / Low Sulfur Distillate Oil	GE 7EA
		E7	6	1	Natural Gas / Low Sulfur Distillate Oil	GE 7EA
		E8	7	1	Natural Gas / Low Sulfur Distillate Oil	GE 7EA
		E9	8	1	Natural Gas / Low Sulfur Distillate Oil	GE 7EA
61057	Mercer	E5-E12	3*	8	Low Sulfur Distillate Oil	P&W FT4
55778	National Park	E1	1	1	Low Sulfur Distillate Oil	P&W FT4
65500	Salem	E39-E40	3	2	Low Sulfur Distillate Oil	P&W FT4
18068	Sewaren	E7-E14	6*	8	Low Sulfur Distillate Oil	P&W FT4

Notes:

Bergen = Bergen Generating Station; Burlington = Burlington Generating Station; Edison = Edison Generating Station; Essex = Essex Generating Station; Kearny = Kearny Generating Station; Linden = Linden Generating Station; Mercer = Mercer Generating Station; National Park = National Park Generating Station; Salem = Salem Generating Station; Sewaren = Sewaren Generating Station; P&W = Pratt & Whitney; and GE = General Electric.

** Units did not operate on any HED days in 2013.*

Kearny Units No. 10 and 11 were retired effective June 1, 2012 and removed from HEDD annual reports.

Boiler HEDD Units

Facility ID	Facility Name	Equipment ID	Unit No.	Fuel(s)	Model
18068	Sewaren	E1	1	Natural Gas / No. 6 Fuel Oil	Combustion Engineering
		E2	2	Natural Gas / No. 6 Fuel Oil	Combustion Engineering
		E3	3*	Natural Gas / No. 6 Fuel Oil	Combustion Engineering
		E4	4*	Natural Gas / No. 6 Fuel Oil	Combustion Engineering

Notes:

** Units did not operate on any HED days in 2013.*

Hudson Unit No. 1 was retired in December 2011, and removed from HEDD annual reports.

Pursuant to N.J.A.C. 7:27-19.29(b)2, each owner or operator of an HEDD unit must submit a 2009 HEDD Emission Reduction Compliance Demonstration Protocol (2009 Protocol) indicating how the owner or operator (PSEG Fossil) will comply with the HEDD provisions in Subchapter 19. PSEG Fossil's 2009 Protocol was submitted to the Department prior to May 1, 2009 and was formally approved by the Department via letter on October 13, 2010. As shown in this annual report, PSEG Fossil complied with the 2009 Protocol on each and every HEDD to date beginning on May 1, 2009. A copy of PSEG Fossil's 2009 Protocol (and the NJDEP approval letter) is included in **Attachment 1**.

Pursuant to N.J.A.C. 7:27-19.29(b)5 and 19.29(k), each owner or operator of an HEDD unit must submit an annual report for the calendar years 2009 through 2014 by January 30th of the following year demonstrating compliance with the HEDD provisions of Subchapter 19. Also, pursuant to N.J.A.C. 7:27-19.29(b)(4ii), the annual report must contain the provisions agreed to between the owner or operator and the Department in the 2009 Protocol.

This annual report is being submitted for calendar year 2013. In 2013, PSEG Fossil identified eight (8) HEDDs as defined in N.J.A.C. 7:27-19.1. These HEDDs were:

June 2013

June 25, 2013
 June 26, 2013

July 2013

July 5, 2013
 July 15, 2013
 July 16, 2013
 July 17, 2013
 July 18, 2013
 July 19, 2013

Annual Report Compliance Summary

N.J.A.C. 7:27-19.29(b)4: *Demonstrate that all NO_x emission reductions required by (b)3 above were obtained. The owner or operator shall include this demonstration in the annual report at (k) below. Conduct any demonstration using:*

- i. Calculations that demonstrate that the owner or operator achieved all emission reductions required at (b)3 above; or*
- ii. The Department-approved method of demonstrating in the 2009 Protocol that implementation of the 2009 Protocol on each high electric demand day that occurred starting January 1, 2005 through December 31, 2007 would have resulted in at least as many tons of NO_x emission reductions as would have been required by Equation 1 below. The owner or operator shall demonstrate that the owner or operator implemented the 2009 Protocol, or a modified protocol approved by the Department pursuant to (h) below, on each high electric demand day during the calendar year of the applicable annual report; and [submit it to the address in (b)5]*

Status: Compliant

PSEG Fossil has chosen to demonstrate compliance with this requirement using the methods of N.J.A.C. 7:27-19.29(b)(4ii) instead of N.J.A.C. 7:27-19.29(b)(4i). PSEG Fossil's approved 2009 Protocol, which demonstrates that the measures implemented on each HEDD in 2009 historically achieved all required emission reductions as calculated using Equation 1 in N.J.A.C. 7:27-19.29(c), is included in **Attachment 1**.

As further demonstration of this requirement, please refer to the description of compliance with N.J.A.C. 7:27-19.29(k)1 below, which documents that the approved 2009 Protocol has been implemented on each HEDD that occurred in 2013.

N.J.A.C. 7:27-19.29(k): *Each owner or operator identified in (a) above shall submit an annual report for calendar years 2009 through 2014. Each annual report shall be submitted to the Department to the address at (b)5 above, by January 30th of the following year. (For example, the annual report for 2009 is due on January 30, 2010.) At a minimum, the annual report shall include the following information, as applicable, for each measure and each high electric demand day:*

N.J.A.C. 7:27-19.29(k)1: *The actions taken to reduce emissions;*

Status: Compliant

Pursuant to PSEG Fossil's 2009 Protocol, the following actions were taken on all HEDDs in the report period:

1. The simple cycle combustion turbines at Burlington Units No. 9 and 11, and Essex Units No. 10, 11, and 12 operated with water injection at all times while in service, except periods of startup, shutdown, fuel transfer periods (Essex units only), and mechanical

safety testing. As noted above, Essex Units 11 and 12 did not operate in 2013. Documentation pursuant to this requirement is provided in **Attachment 2**.

2. The simple cycle combustion turbines at Mercer Unit No. 3 and Sewaren Unit No. 6 were placed into Maximum Emergency Generation (MEG) alert status with PJM on each HEDD in 2013. As previously noted, Kearny Units No. 10 and 11 were retired effective June 1, 2012.
3. Load switching was encouraged through implementation of the following measures:
 - a. The simple cycle combustion turbine units listed in #2 above were placed on MEG alert status;
 - b. Title V Operating Permit modifications approved in May 2009 increased the allowable annual operating capacity of its clean and efficient General Electric (GE) LM6000 combustion turbines (4 combustion turbines at Kearny Unit No. 12 and 4 combustion turbines at Burlington Unit No. 12); and
 - c. PSEG Fossil encourages PJM to call for operation of its clean and efficient combined cycle combustion turbine units (Bergen Units No. 1 and 2, and Linden Units No. 1 and 2), as well as its clean and efficient simple cycle combustion turbine units (Essex Unit No. 9, Linden Units No. 5, 6, 7 and 8, Burlington Unit No. 12 and Kearny Unit No. 12) by offering them at a more economic price per MW based on unit dispatch rates (closely corresponding to heat rates) before calling for its less efficient Bergen Unit No. 3, Burlington Unit No. 8, Edison Units No. 1, 2, and 3, Kearny Unit No. 9, National Park Unit No. 1, Salem Unit No. 3, and Sewaren Units No. 1, 2, 3, and 4) under normal circumstances. Normal circumstances means PJM would pick up the cleaner/cheaper units in the case of no special circumstances (i.e., no voltage reductions, loss of grid stability, no geographically located load pockets, no brownouts, no blackouts, etc.).

N.J.A.C. 7:27-19.29(k)2: *The baseline and actual emissions in total tons;*

Status: Compliant

The Baseline and Actual Emissions in total tons for measure #1 above (water injection on Burlington Units No. 9 and 11 and/or Essex Units No. 10, 11, and 12) are available as part of the Daily HEDD Emission Reduction Calculations provided in **Attachment 3**. Reductions from measures #2 and #3 cannot be quantified because it is impossible to determine which units would have operated if the protocol were not implemented. Likewise true “baseline emissions” cannot be calculated because it is impossible to determine what units would have been operated if the protocol were not implemented. However, in accordance with the Department’s request, PSEG Fossil has calculated the baseline emissions (BE) and required emission reductions (ER) based on the HEDD units that were operated on each HEDD.

N.J.A.C. 7:27-19.29(k)3: *For measures not associated with an EGU unit, the annual report shall include any documentation required by the approved 2009 Protocol*

Status: N/A

All of the measures PSEG Fossil has described in its 2009 Protocol are associated with EGUs, and therefore this section is Not Applicable.

N.J.A.C. 7:27-19.29(k)4: For measures associated with an EGU unit, the annual report must include:

- i. The total hours of operation for each EGU;
- ii. The type of fuel combusted;
- iii. The hourly fuel use;
- iv. The hourly load in MW;
- v. The hourly heat input in MMBtu/hr;
- vi. The hourly water injection rate;
- vii. The hourly ammonia injection rate;
- viii. The catalytic bed temperature;
- ix. The CEM values or documentation on how the baseline and actual NO_x emission rates were calculated;
- x. Any other data used to calculate baseline and actual NO_x emissions;
- xi. The calculations and results for:
 - (1) Baseline NO_x emissions (BE in Equation 1, at (c) above);
 - (2) Actual NO_x emissions after emission reduction measures;
 - (3) Required NO_x emission reduction (ER in Equation 1, at (c) above); and
 - (4) Actual NO_x emission reduction (BE – actual emissions after emission reduction measures);
- xii. Fuel prices; and
- xiii. Any other documentation required by the Department in the approved 2009 Protocol.

Status: Compliant

By Subpart:

- i. The total hours of operation for each HEDD EGU is equal to the sum of Operating Time from hour 00:00 through 23:59 on the HEDD in question as calculated using the methods of 40 CFR Part 75 (including Appendix D, E & G and as well as the Low Mass Emissions (LME) provisions in 40 CFR 75.19). For the purposes of inclusion in this report, the total hours of operation for HEDD units have been included in **Attachment 4** if the unit operated during any period during that HEDD.
- ii. The types of fuels combusted by all HEDD units are provided as part of the general unit list in this annual report.
- iii. Hourly fuel use is provided as hourly heat input for each HEDD EGU, which is equal to the sum of Operating Time from hour 00:00 through 23:59 on the HEDD in question as calculated using the methods of 40 CFR Part 75 (including Appendix D, E

& G and LME provisions in 40 CFR 75.19). For the purposes of inclusion in this report, the total hours of operation for HEDD units have been included in **Attachment 4** if the unit operated during any period during that HEDD.

- iv. Hourly load in MW [as submitted to the United States Environmental Protection Agency (USEPA) via its Emissions Collection and Monitoring System (ECMPS)] is provided in **Attachment 4** if the unit operated during any period during that HEDD.
- v. Hourly heat input for each HEDD EGU is equal to the sum of Operating Time from hour 00:00 through 23:59 on the HEDD in question as calculated using the methods of 40 CFR Part 75 (including Appendix D, E & G and LME provisions in 40 CFR 75.19). For the purposes of inclusion in this report, the total hours of operation for HEDD units have been included in **Attachment 4** if the unit operated during any period during that HEDD.
- vi. PSEG Fossil owns and operates the following HEDD units which were equipped with water injection control systems specifically as an emissions reduction measure under this section:
 - a. Burlington Units No. 9 and 11
 - b. Essex Units No. 10, 11 and 12

Burlington Units No. 9 and 11 and Essex Units No. 10, 11 and 12 are required to operate their water injection systems whenever they are in operation on a HEDD, except for periods of startup, shutdown, or mechanical safety testing². As such, during HEDDs when these units are in operation, the hourly water injection rate (in gallons per minute) has been provided for such times as the systems are in service for the 24 hours (from hour 00:00 through 23:59) on the HEDD in question in **Attachment 2**.

PSEG Fossil owns and operates various other HEDD units which utilize water injection control systems (e.g. Edison Units No. 1, 2 and 3). However, these systems were installed and operated during NJDEP's 2005-2007 "baseline" analysis. As such, water injection usage for these units is not included as an emissions reduction measure in PSEG Fossil's 2009 Protocol and is not included as part of this report.

- vii. None of PSEG Fossil's HEDD units utilize ammonia injection; therefore this provision is not applicable.
- viii. None of PSEG Fossil's HEDD units utilize catalysts; therefore this provision is not applicable.

² Additionally, Essex may operate its water injection systems during fuel transfer periods as the units can operate on both natural gas and distillate oil. The Burlington units only burn distillate oil.

- ix. Daily NO_x Rates for each HEDD EGU shall be equal to the sum of the daily NO_x pounds divided by the sum of the daily heat input (as defined in Subpart iii) from hour 00:00 through 23:59 on the HEDD in question as calculated using the methods of 40 CFR Part 75, including Appendix D, E & G and LME provisions in 40 CFR 75.19. For the purposes of inclusion in this report, the daily NO_x Rate for HEDD units have been included in **Attachment 4** if the unit operated during any period during that HEDD.
- x. The 40 CFR 75 data provided in Subpart i through ix above has been previously submitted to the USEPA via ECMPS on a quarterly basis. Data submitted through this system is published on the USEPA's Clean Air Markets Division (CAMD) – Air Markets Program Data site (available at <http://ampd.epa.gov/ampd/>). CAMD data was used in the establishment of the HEDD rule by both NJDEP (by reference in N.J.A.C. 7:27-19.29 Equation 1) and PSEG Fossil (through its calculations submitted in the 2009 Protocol). Since data provided in Subpart i through ix above has been previously submitted to USEPA via ECMPS, no further data is required to complete Equation 1.
- xi. The Baseline and Actual Emissions in total tons for the implementation of water injection on Burlington Units No. 9 and 11 and Essex Units No. 10, 11 and 12 are available as part of the Daily HEDD Calculations as provided in **Attachment 4**. Reductions from other measures cannot be quantified because it is impossible to determine which units would have operated if the protocol were not implemented. Likewise true “baseline emissions” cannot be calculated because it is impossible to determine what units would have been operated if the protocol were not implemented. However, in accordance with the Department’s request, PSEG Fossil has calculated the baseline emissions (BE) and required emission reductions (ER) based on the HEDD units that were operated on each HEDD.
- xii. PSEG Fossil has not implemented emissions reduction measures related to fuel prices (e.g., burning natural gas instead of oil to reduce emissions on its dual fuel-fired HEDD units) pursuant to this section. Therefore, they are not required to be listed in this report.
- xiii. Other documentation as required in PSEG Fossil’s 2009 Protocol that is not provided in other attachments is listed below:
 - 1. *Provide documentation if a MEG alert is called and if Kearny Units No. 10 and 11, Mercer Unit No. 3, and Sewaren Unit No. 6 operated, as well as their time of operation. Also, provide documentation that no “MEG alert” units were operated on non-“MEG alert” HEDDs.*
 - 2. *Provide documentation on reasons why Bergen Unit No. 3, Burlington Unit No. 8, Edison Units No. 1, 2, and 3, Hudson Unit No. 1, Kearny Unit No. 9, National Park Unit No. 1, Salem Unit No. 3, and Sewaren Units No. 1, 2, 3, and 4 operated during an HEDD and their time of operation. Such reasons*

could include, but are not limited to: forced outages, nuclear or coal plant load reductions, synchronous condenser to reduce grid emissions, load pocket deficiencies, transmission line outages/issues, natural disasters, emergency conditions, etc.

Pursuant to #1 above, none of the units listed operated on a MEG alert day. Mercer Unit No. 3 and Sewaren Unit No. 6 were placed in “MEG Alert” dispatch status with PJM, and did not operate during any HED days in 2013. As previously noted, Kearny Units No. 10 and 11 were retired effective June 1, 2012.

Pursuant to #2 above, reasons why any of the above units may have operated on an HEDD is supplied in **Attachment 5**.

**PSEG FOSSIL LLC HIGH ELECTRIC DEMAND DAY ANNUAL REPORT
FOR THE PERIOD JANUARY 1, 2013 - DECEMBER 31, 2013**

Certification Pursuant to N.J.A.C. 7:27-1.39(a)1.

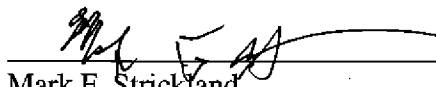
I certify under penalty of law that I believe the information provided in this document is true, accurate and complete. I am aware that there are significant civil and criminal penalties, including the possibility of fine or imprisonment or both, for submitting false, inaccurate or incomplete information.



Richard E. Modes
Environmental Coordinator

Certification Pursuant to N.J.A.C. 7:27-1.39(a)2.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attached documents and, based upon my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil and criminal penalties, including the possibility of fine or imprisonment or both, for submitting false, inaccurate or incomplete information.



Mark F. Strickland
Director – Fossil Environmental Affairs

Attachment 1
Approved HEDD Protocol



State of New Jersey

DEPARTMENT of ENVIRONMENTAL PROTECTION

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

Division of Air Quality
Bureau of Air Permits
401 E. State Street, 2nd floor, P.O. Box 27
Trenton, NJ 08625-0027

BOB MARTIN
Commissioner

October 13, 2010

John Paul Cowan
PSEG Power - VP Operations
80 Park Plaza
Newark, NJ 07101

REFERENCE: 2009 HEDD Emission Reduction Compliance Demonstration Protocol

Dear Mr. Cowan:

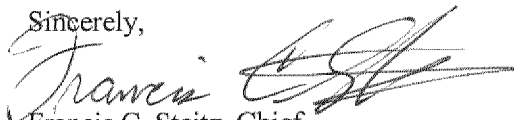
The Department has reviewed your 2009 HEDD Emission Reduction Compliance Demonstration Protocol (2009 Protocol), submitted on April 22, 2009, and subsequent revisions to the 2009 Protocol, submitted on May 1, 2009, July 4, 2009, August 4, 2009, September 14, 2009, September 25, 2009 and August 25, 2010.

Pursuant to N.J.A.C. 7:27-19.29(g), the Department, hereby, approves the revised 2009 Protocol submitted by PSEG on August 25, 2010. The approved 2009 Protocol may be revised in accordance with N.J.A.C. 7:27-19.29(h). Pursuant to N.J.A.C. 7:27-19.29(b)4ii, adopted on March 20, 2009, PSEG must implement this approved 2009 Protocol on each HEDD that occurs through September 2014, or until a revised 2009 Protocol is approved by the Department.

During the proposal of N.J.A.C. 7:27-19.29, and other associated changes to N.J.A.C. 7:27-19, which was published in the August 4, 2008 New Jersey Register, the Department received comments requesting additional time to comply with the NOx RACT emission limits at N.J.A.C. 7:27-19.5(g). In the adoption, which was published in the April 20, 2009 New Jersey Register, The Department committed to propose additional time for partially controlled turbines to comply with these emission limits. That amendment is expected to be proposed later this year. If the rule is amended, any approved 2009 protocol may need to be revised in order to comply with the changes to N.J.A.C. 7:27-19.29

If you have any question concerning this approval or the requirements at N.J.A.C. 7:27-19.29, please call Mr. Michael Hogan at (609)-633-1124.

Sincerely,


Francis C. Steitz, Chief
Bureau of Air Permits

CC: J. Preczewski, P.E., Assistant Director AQPP
B. Bouzid, Section Chief
Y. Doshi, Supervisor
M. Hogan
T. Key
T. McNevin



August 25, 2010

Mr. John Preczewski
Division of Air Quality
New Jersey Department of Environmental Protection
401 East State Street
PO Box 027
Trenton, New Jersey 08625-0027

**RE: PSEG Fossil LLC
Submittal of 2009 HEDD Emission Reduction Compliance Demonstration Protocol
N.J.A.C. 7:27-19.29**

Dear Mr. Preczewski:

PSEG Fossil LLC (PSEG Fossil) is pleased to submit the attached 2009 High Electric Demand Day (HEDD) Emission Reduction Compliance Demonstration Protocol (2009 Protocol) pursuant to the requirements of New Jersey Administrative Code (N.J.A.C.) 7:27-19.29. Please note that PSEG Fossil submitted its proposed 2009 Protocol on May 1, 2009. PSEG Fossil achieved compliance with the provisions of N.J.A.C. 7:27-19.29(b)4 since May 1, 2009 by complying with N.J.A.C. 7:27-19.29(b)4ii which reads:

"The Department-approved method of demonstrating in the 2009 Protocol that implementation of the 2009 Protocol on each high electric demand day that occurred starting January 1, 2005 through December 31, 2007 would have resulted in at least as many tons of NO_x emission reductions as would have been required by Equation 1 below. The owner or operator shall demonstrate that the owner or operator implemented the 2009 Protocol, or a modified protocol approved by the Department pursuant to (h) below, on each high electric demand day during the calendar year of the applicable annual report."

Should you have any questions or require additional information, please do not hesitate to contact me at (973) 430-7911 or Erin Gorman at (973) 430-6359.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark F. Strickland".

Mark F. Strickland, P.E.
Director – Fossil Environmental Affairs

cc: Michael Hogan (NJDEP)

**PSEG FOSSIL LLC 2009 HEDD EMISSION REDUCTION COMPLIANCE
DEMONSTRATION PROTOCOL**

Certification Pursuant to N.J.A.C. 7:27-1.39(a)1.

I certify under penalty of law that I believe the information provided in this document is true, accurate and complete. I am aware that there are significant civil and criminal penalties, including the possibility of fine or imprisonment or both, for submitting false, inaccurate or incomplete information.



Mark F. Strickland
Director – Fossil Environmental Affairs

Certification Pursuant to N.J.A.C. 7:27-1.39(a)2.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attached documents and, based upon my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil and criminal penalties, including the possibility of fine or imprisonment or both, for submitting false, inaccurate or incomplete information.



John Paul Cowan
Vice President – Fossil Operations



PSEG Fossil LLC

**2009 HEDD Emission Reduction Compliance
Demonstration Protocol**

Submitted To:

**Assistant Director, Air Quality Permitting Element
Division of Air Quality
New Jersey Department of Environmental Protection
401 East State Street
P.O. Box 027
Trenton, New Jersey 08625-0027**

Original Submittal: May 1, 2009

Final Submittal: August 25, 2010

**SUBMITTED BY: PSEG FOSSIL LLC
80 PARK PLAZA, T25H
NEWARK, NEW JERSEY 07102**

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1.0 INTRODUCTION

On August 4, 2008, the New Jersey Department of Environmental Protection (NJDEP or the Department) proposed new rules and amendments governing the control and prohibition of Volatile Organic Compounds (VOC) and Nitrogen. On March 20, 2009, the rules were adopted and published in the New Jersey Register, became effective on April 20, 2009 and operative on May 19, 2009. These rules impact several source categories of emissions including stationary combustion turbines and boilers serving electric generating units that operate on high electric demand days (HEDDs). The Department lowered the emission standards for high electric demand day (HEDD) units. HEDD units emit significant quantities of nitrogen oxides (NO_x) on HEDDs, which are typically during high temperature and high ozone days in the summer.

Pursuant to New Jersey Administrative Code (N.J.A.C.) 7:27-19.1, HEDD means the day following a day in which the next day forecast load is estimated to have a peak value of 52,000 megawatts (MW) or higher as predicted by the Pennsylvania-Jersey-Maryland¹ (PJM) Interconnection 0815 update to its Mid Atlantic Region Hour Ending Integrated Forecast Load, available from PJM Interconnection at <http://oasis.pjm.com/doc/projload.txt>. N.J.A.C. 7:27-19.1 defines an HEDD unit, as an electrical generating unit, capable of generating 15 MW or more, that commenced operation prior to May 1, 2005, and that operated less than or equal to an average of 50 percent of the time during the ozone seasons of 2005 through 2007.

PSEG Fossil LLC (PSEG Fossil) owns and operates the following HEDD units in the State of New Jersey:

¹ Pennsylvania-New Jersey-Maryland Interconnection, LLC, is a regional transmission organization (RTO) that coordinates the movement of wholesale electricity in all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia. Acting neutrally and independently, PJM operates the world's largest competitive wholesale electricity market and ensures the reliability of the largest centrally dispatched grid in the world.

Combustion Turbines

Facility ID	Facility Name	Equipment ID	Unit No.	No. of Turbines	Fuel(s)	Model
02488	Bergen	E5	3	1	Natural Gas	P&W FT4
45979	Burlington	E4	8	1	No. 2 Fuel Oil	P&W FT4
		E5-E12	9	8	No. 2 Fuel Oil	P&W FT4
		E17-E24	11	8	No. 2 Fuel Oil	P&W FT4
		E36-E39	12	4	Natural Gas / No. 2 Fuel Oil	GE LM6000
17824	Edison	E1-E8	1	8	Natural Gas / No. 2 Fuel Oil	P&W FT4
		E9-E16	2	8	Natural Gas / No. 2 Fuel Oil	P&W FT4
		E17-E24	3	8	Natural Gas / No. 2 Fuel Oil	P&W FT4
07627	Essex	E1	9	1	Natural Gas / No. 2 Fuel Oil	GE 7EA
		E2-E9	10	8	Natural Gas / No. 2 Fuel Oil	P&W FT4
		E10-E17	11	8	Natural Gas / No. 2 Fuel Oil	P&W FT4
		E18-E25	12	8	Natural Gas / No. 2 Fuel Oil	P&W FT4
12200	Kearny	E4	9	1	Natural Gas	P&W FT4
		E5-E12	10	8	Natural Gas / No. 2 Fuel Oil	P&W FT4
		E13-E20	11	8	Natural Gas / No. 2 Fuel Oil	P&W FT4
		E35-E38	12	4	Natural Gas / No. 2 Fuel Oil	GE LM6000
41810	Linden	E6	5	1	Natural Gas / No. 2 Fuel Oil	GE 7EA
		E7	6	1	Natural Gas / No. 2 Fuel Oil	GE 7EA
		E8	7	1	Natural Gas / No. 2 Fuel Oil	GE 7EA
		E9	8	1	Natural Gas / No. 2 Fuel Oil	GE 7EA
61057	Mercer	E5-E12	3	8	No. 2 Fuel Oil	P&W FT4
55778	National Park	E1	1	1	No. 2 Fuel Oil	P&W FT4
65500	Salem	E39-E40	3	2	No. 2 Fuel Oil	P&W FT4
18068	Sewaren	E7-E14	6	8	No. 2 Fuel Oil	P&W FT4

Notes: Bergen = Bergen Generating Station; Burlington = Burlington Generating Station; Edison = Edison Generating Station; Essex = Essex Generating Station; Kearny = Kearny Generating Station; Linden = Linden Generating Station; Mercer = Mercer Generating Station; National Park = National Park Generating Station; Salem = Salem Generating Station; Sewaren = Sewaren Generating Station; P&W = Pratt & Whitney; and GE = General Electric.

Boilers

Facility ID	Facility Name	Equipment ID	Unit No.	Fuel(s)	Model
12202	Hudson	E1	1	Natural Gas / No. 6 Fuel Oil	Babcock & Wilcox
18068	Sewaren	E1	1	Natural Gas / No. 6 Fuel Oil	Combustion Engineering
		E2	2	Natural Gas / No. 6 Fuel Oil	Combustion Engineering
		E3	3	Natural Gas / No. 6 Fuel Oil	Combustion Engineering
		E4	4	Natural Gas / No. 6 Fuel Oil	Combustion Engineering

Note: Hudson = Hudson Generating Station

Pursuant to the requirements of N.J.A.C. 7:27-19.29(b)2, the owner or operator of an HEDD unit(s) is required to submit to the Department a 2009 HEDD Emission Reduction Compliance Demonstration Protocol (2009 Protocol) by the operative date of

the rule, which is May 19, 2009.

Since the operative date of the rule occurs after NJDEP's initial targeted HEDD compliance period (May 1, 2009), compliance with N.J.A.C. 7:27-19.29(b)3 and N.J.A.C. 7:27-19.29(g) can be achieved by the implementation of this proposed 2009 Protocol until the Department approves the Protocol. This document is PSEG Fossil's proposed 2009 Protocol. In cooperation with the NJDEP, PSEG has agreed to voluntarily initiate the operational elements as outlined in this protocol as of May 1, 2009. As a compliance mechanism, PSEG will operate in accordance with the protocol.

1.1 HEDD Compliance Strategy

The NO_x emission reduction measures in this 2009 protocol were established based on an in-depth analysis of NO_x emissions from PSEG Fossil's HEDD units on all HEDDs that occurred during calendar years 2005, 2006 and 2007. Based on discussions and correspondence with NJDEP², it was determined that there were thirty-nine (39) HEDDs from January 1, 2005 through December 31, 2007 comprised of the following:

6/28/05	7/11/05	7/12/05	7/18/05	7/19/05	7/20/05
7/21/05	7/22/05	7/25/05	7/26/05	7/27/05	8/3/05
8/4/05	8/5/05	8/11/05	7/11/06	7/17/06	7/18/06
7/26/06	7/27/06	7/28/06	7/31/06	8/1/06	8/2/06
8/3/06	8/4/06	8/7/06	6/19/07	6/27/07	6/28/07
7/9/07	7/10/07	7/11/07	8/1/07	8/2/07	8/3/07
8/7/07	8/8/07	8/9/07			

² NJDEP document *2009 Protocol Comments, General Comments on Protocol Development* - The Department has evaluated the historical load data that is available in order to define a set of days that should be evaluated as HEDDs having occurring during the calendar years 2005-2007. The definition of HEDD is based on PJM's 8:15 load forecast for the next day, however, this data is not available historically so it is impossible to determine which days would actually have been an HEDD by definition. However, PJM's 5:15 forecast and 11:15 forecast are both available historically as is the actual load that was required on each day. Realizing that forecast load is highly unpredictable, the Department decided that the list of days to be evaluated, in each 2009 Protocol, should include those days on which the 5:15 forecast and the 11:15 forecast were both 52,000 or more and the actual load required was 52,000 or more. This method supports the intent of the rule because the intent was to get reductions on the high demand days, on which most of the uncontrolled HEDD units were operated. This method also maintains the integrity of the definition of an HEDD by using the available forecasted load as a determining factor. By combining these two ideas, this method eliminates days on which the forecast may have been above 52,000 but the actual demand was not that high. This method produces 39 HEDDs for evaluation (see the attached list).

After determining these HEDDs, PSEG Fossil applied hierarchical steps of NO_x emission reduction measures to its HEDD units on each of the 39 HEDDs in 2005-2007, until sufficient NO_x reductions were achieved to exceed the emission reduction goals of Equation 1 outlined in N.J.A.C. 7:27-19.29(c).

Based upon this analysis, as well as input from the Department during formative meetings and discussions with NJDEP staff, PSEG Fossil developed the following NO_x emission reduction measures for its 2009 Protocol:

1. Install water injection to achieve at least thirty percent (30%) NO_x emission reductions on a total of forty (40) Pratt & Whitney FT4 combustion turbines at Burlington and Essex³, which represent approximately 900 MW of electric power generation, and utilize the water injection systems on these units on HEDDs;
2. Place certain higher NO_x-emitting units on Maximum Emergency Generation (MEG) alert status on HEDDs, which means that these units would not be operated unless directed by PJM through the declaration of a MEG alert, in order to prevent or mitigate voltage reductions or interruptions in electric service, or both. The units involved are thirty-two (32) FT4 turbines in the "Hi-Cap" configuration⁴ (Kearny Units No. 10 and 11, Mercer Unit No. 3 and Sewaren Unit No. 6), which represent approximately 500 MW of electric power generation; and
3. Retrospectively shifted load on HEDDs from the remaining higher NO_x-emitting sources in PSEG Fossil's generating fleet (Bergen Unit No. 3, Burlington Unit No. 8, Edison Units No. 1, 2, and 3, Hudson Unit No. 1, Kearny Unit No. 9, National Park Unit No. 1, Salem Unit No. 3, Sewaren Units No. 1, 2, 3 and 4) to cleaner PSEG Fossil emission sources (Bergen Units No. 1 and 2, Essex Unit No. 9 and Linden Units No. 1 and 2). It should be noted that the actual operation of the sources listed in this measure is directed by PJM through a bidding process, which is largely based on the cost of generation, geographic location of the grid's electric needs and the availability of capacity to generate electricity. However, PSEG Power will encourage PJM to call for operation of Bergen Units No. 1 and 2, Essex Unit No. 9 and Linden Units No. 1 and 2 as well as Linden Units No. 5,

³ 16 FT4 turbines at Burlington will be equipped with water injection (Units No. 9 and 11), and 24 FT4 turbines at Essex will be equipped with water injection (Units No. 10, 11, and 12). Note that an additional 24 FT4 turbines at Edison are already equipped with water injection (Units No. 1, 2, and 3).

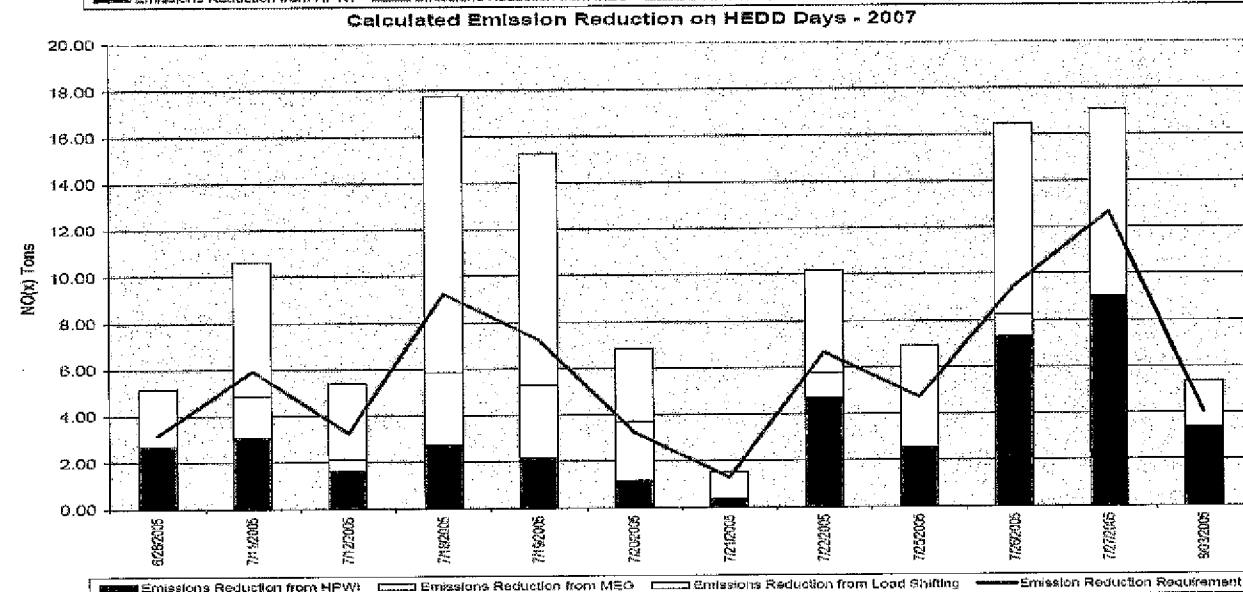
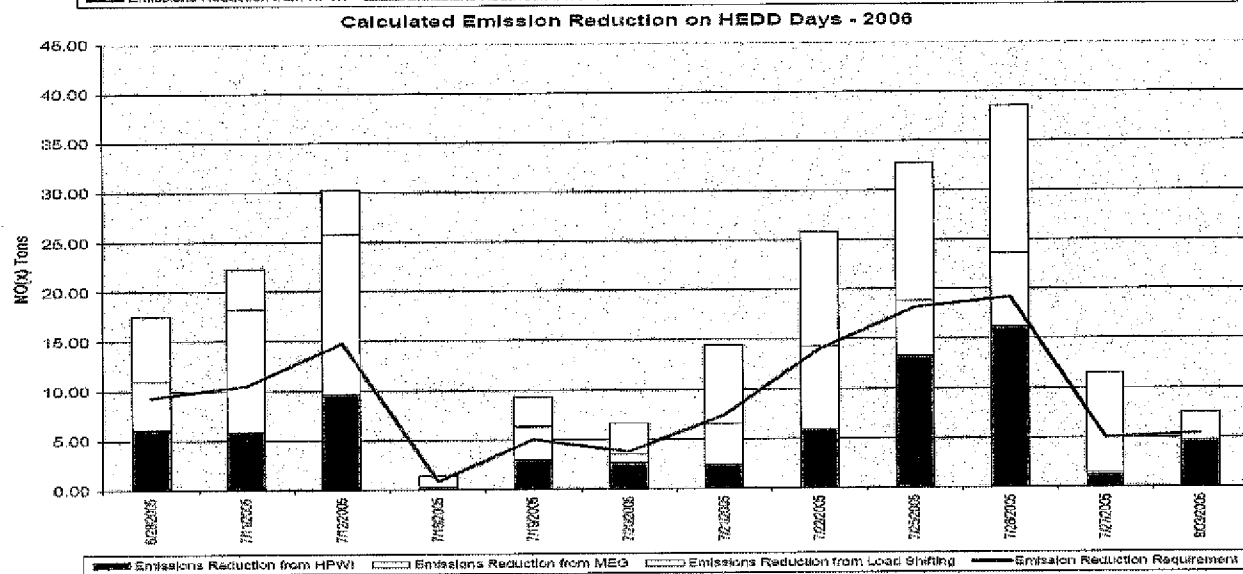
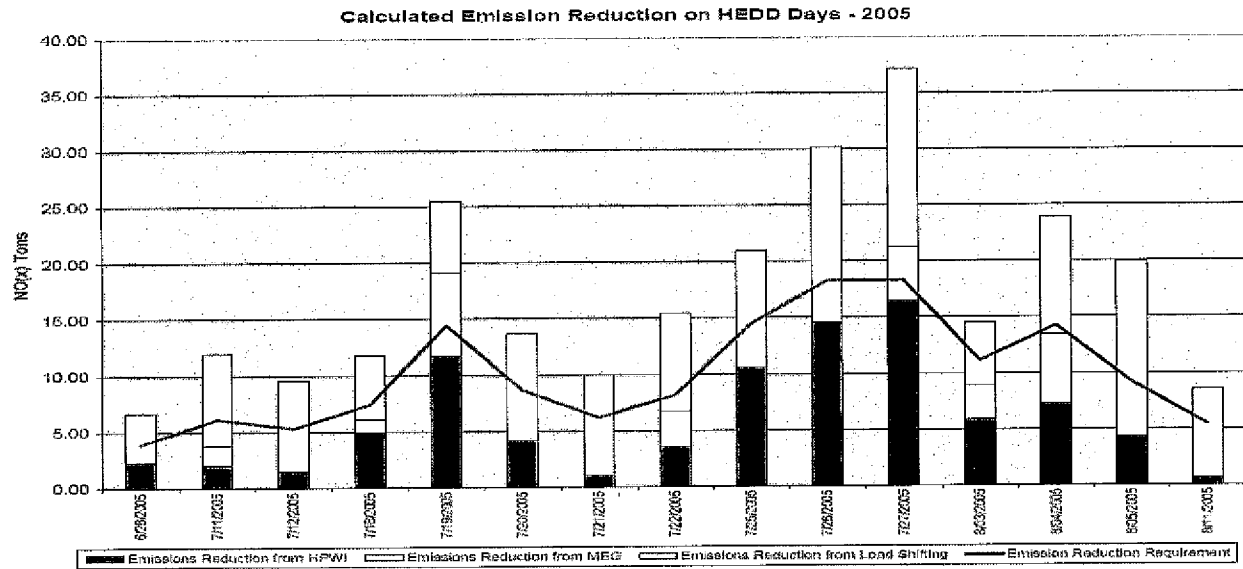
⁴ "Hi-Cap" is an FT4 turbine configuration in which eight (8) FT4 turbines are served by a single electric generator. Other FT4 configurations include "Twin-Pack" (2 FT4s per generator) and "Power-Pack" (1 FT4, 1 generator).

6, 7 and 8, Burlington Unit No. 12 and Kearny Unit No. 12 by offering them at a more economic price per MW based on unit dispatch rates (closely corresponding to heat rates) before calling for Bergen Unit No. 3, Burlington Unit No. 8, Edison Units No. 1, 2, and 3, Hudson Unit No. 1, Kearny Unit No. 9, National Park Unit No. 1, Salem Unit No. 3, Sewaren Units No. 1, 2, 3 and 4 under normal circumstances. Normal circumstances means PJM would pick up the cleaner/cheaper units in the case of no special circumstances (i.e., no voltage reductions, loss of grid stability, no geographically located load pockets, no brownouts, no blackouts, etc.). It should be noted that there are other factors that affect PJM's dispatching of PSEG Fossil's units (i.e., lengthy startup durations) which could result in dirtier units being dispatched prior to cleaner units, but are unlikely to significantly contribute to PSEG Fossil's NO_x emissions on HEDDs.

The results of the retrospective application of these NO_x reduction measures exceeded the emission reductions (ER) that would be required as specified by Equation 1 of N.J.A.C. 7:27-19.29(c). PSEG forecasts and the Department agrees that by applying water injection technology (Measure 1 above), placing certain units in MEG status (Measure 2 above) and encouraging PJM to call for operation of Bergen Units No. 1 and 2, Essex Unit No. 9 and Linden Units No. 1 and 2 as well as Linden Units No. 5, 6, 7 and 8, Burlington Unit No. 12 and Kearny Unit No. 12 by offering them at a more economic price per MW based on unit dispatch rates (closely corresponding to heat rates) before calling for Bergen Unit No. 3, Burlington Unit No. 8, Edison Units No. 1, 2, and 3, Hudson Unit No. 1, Kearny Unit No. 9, National Park Unit No. 1, Salem Unit No. 3, Sewaren Units No. 1, 2, 3 and 4 under normal circumstances (Measure 3 above) will result in PJM dispatch of cleaner units and subsequent NO_x reductions. By applying the protocol retrospectively to quantify the NO_x reductions over a three year period, there is a high expectation that similar NO_x reductions will be realized in any reasonable HEDD scenario in the future. A summary of the supporting calculations as requested by NJDEP are included as Appendix A of this report. The following table and charts display PSEG Fossil's NO_x emission reductions on each of the 39 HEDDs between 2005 and 2007.

Calculated NOx Emission Reductions for HEDDs 2005-2007

HEDD	Emission Reduction Requirement	Emissions Reduction from HPWI	Emissions Reduction from MEG	Emissions Reduction from Load Shifting	Total Emissions Reduction	Percentage Reduced Above ER
6/28/2005	3.92	2.25	0	4.36	6.61	69%
7/11/2005	6.18	1.98	1.80	8.12	11.90	92%
7/12/2005	5.35	1.41	0	8.08	9.49	77%
7/18/2005	7.48	4.90	1.18	5.69	11.76	57%
7/19/2005	14.47	11.67	7.42	6.34	25.44	76%
7/20/2005	8.69	4.16	0	9.48	13.64	57%
7/21/2005	6.24	1.01	0	8.96	9.97	60%
7/22/2005	8.22	3.55	3.18	8.70	15.42	88%
7/25/2005	14.51	10.56	0	10.34	20.90	44%
7/26/2005	18.34	14.49	0	15.65	30.14	64%
7/27/2005	18.36	16.47	4.77	15.86	37.10	102%
8/03/2005	11.18	5.86	3.05	5.62	14.54	30%
8/04/2005	14.29	7.23	6.21	10.42	23.87	67%
8/05/2005	9.22	4.29	0	15.66	19.95	116%
8/11/2005	5.47	0.56	0	7.99	8.55	56%
7/11/2006	9.38	6.04	4.95	6.57	17.56	87%
7/17/2006	10.56	5.84	12.39	4.01	22.24	111%
7/18/2006	14.82	9.65	16.14	4.52	30.30	104%
7/26/2006	0.85	0.19	0	1.21	1.40	64%
7/27/2006	5.06	2.94	3.36	2.97	9.28	83%
7/28/2006	3.80	2.59	0.91	3.09	6.59	73%
7/31/2006	7.43	2.37	4.18	7.90	14.44	95%
8/01/2006	14.05	5.89	8.40	11.54	25.83	84%
8/02/2006	18.24	13.28	5.55	13.98	32.80	80%
8/03/2006	19.25	16.20	7.44	14.93	38.57	100%
8/04/2006	5.05	1.19	0.25	10.09	11.53	128%
8/07/2006	5.45	4.72	0	2.72	7.44	36%
6/19/2007	3.19	2.69	0	2.46	5.15	62%
6/27/2007	5.95	3.10	1.75	5.77	10.62	78%
6/28/2007	3.27	1.63	0.49	3.25	5.37	64%
7/09/2007	9.26	2.75	3.08	11.93	17.76	92%
7/10/2007	7.28	2.18	3.11	9.97	15.25	110%
7/11/2007	3.26	1.18	2.51	3.15	6.84	110%
8/01/2007	1.30	0.36	0	1.17	1.54	18%
8/02/2007	6.68	4.70	1.08	4.41	10.19	53%
8/03/2007	4.73	2.56	0	4.37	6.93	47%
8/07/2007	9.52	7.29	0.96	8.20	16.44	73%
8/08/2007	12.68	9.02	0	8.03	17.05	34%
8/09/2007	4.04	3.39	0	1.97	5.36	33%



This demonstration serves as PSEG Fossil's method of compliance with the HEDD component of NJDEP's Ozone Reasonably Achievable Control Technology (RACT) rules pursuant to N.J.A.C. 7:27-19.29(b)4ii which states:

"The Department-approved method of demonstrating in the 2009 Protocol that implementation of the 2009 Protocol on each high electric demand day that occurred starting January 1, 2005 through December 31, 2007 would have resulted in at least as many tons of NO_x emission reductions as would have been required by Equation 1 below."

Equation 1 is more specifically outlined and discussed in Section 2.3 of this Protocol.

Also, pursuant to the second sentence of N.J.A.C. 7:27-19.29(b)4ii, PSEG Fossil will demonstrate that it implemented the 2009 Protocol, or a modified protocol approved by the Department, on each HEDD during the calendar year of the applicable annual report. This demonstration will be specifically outlined in the annual report.

The following sections of this 2009 Protocol contain the regulatory requirements of N.J.A.C. 7:27-19.29.

2.0 2009 PROTOCOL REQUIREMENTS

Pursuant to N.J.A.C. 7:27-19.29(b)3, as an owner or operator of HEDD units, PSEG Fossil must obtain the NO_x reductions determined by Equation 1 of N.J.A.C. 7:27-19.29(c), using one or more measures that meet the requirements of N.J.A.C. 7:27-19.29(d) and that are listed in the 2009 Protocol, on each HEDD.

It is currently forecasted that the following HEDD units will not be able to comply with NJDEP's new NO_x RACT requirements beginning in May 1, 2015:

Facility ID	Facility Name	Equipment ID	Unit No.	No. of Turbines	Fuel(s)	Model
02488	Bergen	E5	3	1	Natural Gas	P&W FT4
45979	Burlington	E4	8	1	No. 2 Fuel Oil	P&W FT4
12200	Kearny	E4	9	1	Natural Gas	P&W FT4
		E5-E12	10	8	Natural Gas / No. 2 Fuel Oil	P&W FT4
		E13-E20	11	8	Natural Gas / No. 2 Fuel Oil	P&W FT4
61057	Mercer	E5-E12	3	8	No. 2 Fuel Oil	P&W FT4
55778	National Park	E1	1	1	No. 2 Fuel Oil	P&W FT4
65500	Salem	E39-E40	3	2	No. 2 Fuel Oil	P&W FT4
18068	Sewaren	E7-E14	6	8	No. 2 Fuel Oil	P&W FT4

As currently configured, these units will likely be taken out of service prior to May 1, 2015. NJDEP has indicated that it would propose a revision to the final rule to allow for these units to be classified as "emergency use only" meaning these units could continue to operate during brownouts and blackouts. PSEG Fossil also anticipates that these units will have the ability to operate for testing and maintenance on days which the Department does not forecast the air quality anywhere in New Jersey to be "unhealthy for sensitive groups", "unhealthy" or "very unhealthy" as defined in the EPA's Air Quality Index at www.airnow.gov, to ensure availability during a grid emergency.

2.1 Extensions Offered in Expected Revised Rule

Based on several of NJDEP's responses to comments on the HEDD rule, which was adopted on March 20, 2009, and discussions with the Department, NJDEP will propose some revisions to the adopted rule. PSEG Fossil expects these revisions to contain different applicable dates for achieving NO_x emission reductions pursuant to N.J.A.C. 7:27-19.29 if the HEDD unit is eligible for and the owner or operator chooses to take

advantage of an exemption from the applicable 2015 emission rate that the Department will be proposing to add to the rule. As such, PSEG Fossil proposes to continue to obtain its NO_x emission reductions in accordance with its 2009 Protocol and the expected requirements of the revised rule from May 1, 2015 through May 31, 2017. PSEG Fossil expects the revised rule to allow for an additional 2 years and 1 month to operate, without complying with the applicable 2015 emission rate, any HEDD unit that meets the following:

- 1) Installed a NO_x emission control apparatus with a control efficiency of at least 30 percent;
- 2) Control apparatus commenced operation after January 23, 1994 but prior to the operative date of the expected revised rule; and
- 3) HEDD units taken out of service prior to December 31, 2016.

PSEG Fossil has the following HEDD units that meet the requirements of the Department's expected proposal through May 1, 2015:

Facility ID	Facility Name	Equipment ID	Unit No.	No. of Turbines	Fuel(s)	Model
45979	Burlington	E5-E12	9	8	No. 2 Fuel Oil	P&W FT4
		E17-E24	11	8	No. 2 Fuel Oil	P&W FT4
17824	Edison	E1-E8	1	8	Natural Gas / No. 2 Fuel Oil	P&W FT4
		E9-E16	2	8	Natural Gas / No. 2 Fuel Oil	P&W FT4
		E17-E24	3	8	Natural Gas / No. 2 Fuel Oil	P&W FT4
07627	Essex	E2-E9	10	8	Natural Gas / No. 2 Fuel Oil	P&W FT4
		E10-E17	11	8	Natural Gas / No. 2 Fuel Oil	P&W FT4
		E18-E25	12	8	Natural Gas / No. 2 Fuel Oil	P&W FT4

Pursuant to the above criteria:

- 1) These HEDD units have installed water injection which provides greater than 30 percent NO_x emission control.
- 2) The Burlington FT4s commenced operation of their water injection systems on May 1, 2009. The Edison FT4s commenced operation of their water injection systems on May 24, 1999. The Essex FT4s commenced operation of their water injection systems on May 1, 2009.
- 3) These HEDD units will be taken out of service prior to December 31, 2016.

With the expected proposed revision to the final rule (as mentioned above), these units will be able to comply with the expected proposed revised NO_x RACT requirements beginning on May 1, 2015 through May 31, 2017. PSEG Fossil also expects that these units, in addition to PSEG Fossil's other operational HEDD and non-HEDD units, will have the ability to participate in PSEG Fossil's NO_x Averaging Plan as a means of complying with their NO_x RACT emission limits through May 31, 2017.

2.2 N.J.A.C. 7:27-19.29(d)

N.J.A.C. 7:27-19.29(d) contains a list of information required to be included in the 2009 Protocol.

2.3 N.J.A.C. 7:27-19.29(d)1

The 2009 Protocol must include the calculations performed in N.J.A.C. 7:27-19.29(c) for Emission Factor (EF) and Reduction Factor (RF). For the purposes of this protocol, calculations were performed for each HEDD that occurred starting January 1, 2005 through December 31, 2007 using Equation 1 in N.J.A.C. 7:27-19.29(c), which is described below.

Equation 1

$$ER = (BE \div EF) \times RF$$

Where:

ER, BE, EF and RF are in units of tons of NO_x per high electric demand day (t/HEDD);

ER (Emission Reduction) = The total tons of NO_x reductions that is required from an owner or operator on each high electric demand day;

BE (Baseline Emission) = The total tons of NO_x that would be emitted on each high electric demand day, if the owner or operator did not implement any emission reduction measures. This calculation is based on total actual operation of HEDD units and total actual operation of new electric generating

units installed to replace one or more HEDD units for that high electric demand day. Turbines that are HEDD units and designated, pursuant to N.J.A.C. 7:27-19.5(k), to be used for emergency use only shall not be included in this calculation;

EF (Emission Factor) =

The total tons of NO_x that were emitted by all of the owner or operator's HEDD units on July 26, 2005. In order to calculate EF, the owner or operator shall obtain the NO_x emitted, in tons, for each HEDD unit operated on July 26, 2005, from the USEPA Clean Air Markets Division (CAMD) NO_x emission data, which as of May 19, 2009 (the date of this rulemaking) can be found at <http://camddataandmaps.epa.gov/gdm/>; and

RF (Reduction Factor) =

The HEDD NO_x emission reduction factor for each owner or operator shall be the sum of all Unit Reduction Factors (URF). A URF shall be calculated, in tons, for each HEDD unit that operated on July 26, 2005, using the following equation: $URF = (UE \times C)$

Where:

URF (Unit Reduction Factor) = The reduction of NO_x emissions, in tons, emitted by a HEDD unit on July 26, 2005 that would have occurred if the unit had been controlled;

UE (Unit Emissions) = The tons of NO_x emissions emitted by a HEDD unit on July 26, 2005 obtained from the USEPA CAMD NO_x emission data, which as of May 19, 2009 (the date of this rulemaking) can be found at <http://camddataandmaps.epa.gov/gdm/>; and

C (Control Factor) = If the HEDD unit is a combustion turbine that was not controlled with water injection or Selective Catalytic Reduction (SCR) on July 26, 2005, and

the maximum allowable NO_x emission rate of that unit was 0.15 lb/MMBtu or greater on July 26, 2005, then C is equal to 0.4. If the HEDD unit is a boiler that was not controlled with SCR or Selective Non-Catalytic Reduction (SNCR) controls on July 26, 2005 and the maximum allowable NO_x emission rate of that unit was 0.15 lb/MMBtu or greater on July 26, 2005, then C is equal to 0.3. If the HEDD unit is a combustion turbine that was controlled with water injection or SCR on July 26, 2005, or is a boiler that was controlled with SCR or SNCR on July 26, 2005, or had a NO_x emission rate of less than 0.15 lb/MMBtu on July 26, 2005, then C is equal to 0.

Since EF and RF are based upon PSEG Fossil's HEDD units' operation on July 26, 2005, the following table (which also appears in Appendix A) shows the calculations for these values.

Emission Reduction (ER) Calculation pursuant to N.J.A.C. 7:27-19.29(c)

High Electric Demand Day: 7/26/2005								
Station	Unit ID	MW	Heat Input (mmBtu)	NOx Rate (lb/mmBtu)	NOx Rate (lb/MWh)	NOx Emissions (tons)	Control Factor (CF)	Unit Reduction Factor (NOx tons)
Bergen	3	35	739.4	0.700	14.786	0.269	0.4	0.104
Burlington	8	-	-	-	-	-	0.4	-
Burlington	91	365.00	5,452.80	1.20	17.93	3.272	0.4	1.31
Burlington	92	180.00	2,590.30	1.20	17.93	1.434	0.4	0.57
Burlington	93	170.00	2,839.80	1.20	17.93	1.624	0.4	0.31
Burlington	94	201.00	3,002.90	1.20	17.93	1.802	0.4	0.72
Burlington	111	104.00	1,553.30	1.20	17.93	0.932	0.4	0.37
Burlington	112	170.00	2,539.70	1.20	17.93	1.624	0.4	0.81
Burlington	113	135.00	2,016.90	1.20	17.93	1.210	0.4	0.48
Burlington	114	127.00	1,897.40	1.20	17.93	1.138	0.4	0.48
Burlington	121	281	2,679.8	0.099	0.950	0.133	0	-
Burlington	122	312	2,957.0	0.097	0.922	0.144	0	-
Burlington	123	305	2,926.8	0.096	0.921	0.140	0	-
Burlington	124	303	2,929.0	0.099	0.959	0.145	0	-
Edison	11	390	6,052.8	0.260	4.036	0.787	0	-
Edison	12	385	5,976.3	0.260	4.036	0.777	0	-
Edison	13	428	6,642.5	0.260	4.036	0.884	0	-
Edison	14	429	6,668.0	0.260	4.036	0.886	0	-
Edison	21	263	4,082.1	0.260	4.036	0.531	0	-
Edison	22	277	4,299.1	0.260	4.035	0.559	0	-
Edison	23	289	4,485.3	0.260	4.036	0.583	0	-
Edison	24	278	4,314.6	0.260	4.036	0.581	0	-
Edison	31	333	5,169.2	0.260	4.036	0.872	0	-
Edison	32	337	5,230.3	0.260	4.036	0.880	0	-
Edison	33	331	5,137.2	0.260	4.035	0.868	0	-
Edison	34	336	5,214.8	0.260	4.035	0.878	0	-
Essex	9	1,040	10,778.6	0.071	0.739	0.385	0	-
Essex	101	314	4,803.1	0.415	6.347	0.997	0.4	0.399
Essex	102	308	4,711.3	0.415	6.347	0.977	0.4	0.391
Essex	103	314	4,803.1	0.415	6.348	0.997	0.4	0.399
Essex	104	158	2,417.4	0.415	6.348	0.502	0.4	0.201
Essex	111	400	6,118.9	0.445	6.808	1.362	0.4	0.545
Essex	112	404	6,180.1	0.445	6.807	1.375	0.4	0.550
Essex	113	373	5,782.3	0.445	6.807	1.287	0.4	0.515
Essex	114	414	6,333.1	0.445	6.806	1.409	0.4	0.584
Essex	121	504	7,709.8	0.445	6.808	1.718	0.4	0.698
Essex	122	517	7,909.7	0.445	6.808	1.760	0.4	0.704
Essex	123	498	7,818.0	0.445	6.808	1.595	0.4	0.678
Essex	124	489	7,480.3	0.445	6.807	1.564	0.4	0.666
Hudson	1	6,006	65,560.9	0.263	2.429	7.296	0.3	2.189
Kearny	9	99	1,704.2	0.700	12.048	0.596	0.4	0.239
Kearny	10	268	4,813.3	0.700	12.050	1.615	0.4	0.646
Kearny	11	760	13,082.7	0.700	12.050	4.578	0.4	1.832
Kearny	121	228	2,175.3	0.085	0.820	0.093	0	-
Kearny	122	62	516.3	0.088	0.881	0.027	0	-
Kearny	123	219	2,324.2	0.083	0.882	0.097	0	-
Kearny	124	228	2,254.1	0.087	0.858	0.098	0	-
Linden	5	740	8,905.5	0.023	0.278	0.103	0	-
Linden	6	749	9,635.4	0.026	0.340	0.127	0	-
Linden	7	858	10,199.0	0.025	0.293	0.126	0	-
Linden	8	849	10,697.6	0.032	0.400	0.170	0	-
Mercer	3	-	-	-	-	-	0.4	-
National Park	1	-	-	-	-	-	0.4	-
Salem	3	-	-	-	-	-	0.4	-
Sewaren	1	-	-	-	-	-	0.3	-
Sewaren	2	1,598	18,226.2	0.185	2.109	1.885	0.3	0.505
Sewaren	3	1,444	19,610.8	0.243	3.296	2.380	0.3	0.714
Sewaren	4	1,279	19,499.8	0.234	3.575	2.236	0.3	0.668
Sewaren	6	-	-	-	-	-	0.4	-
TOTAL		27,865	358,630			59.281		18.343

Calculation Results:

Emission Factor (EF) = 59.281 tons
 Baseline Emissions (BE) = 59.281 tons
 Reduction Factor (RF) = 18.343 tons

$$ER = \left(\frac{BE}{EF} \right) * RF$$

Emission Reduction (ER) = 18.343 tons

2.4 N.J.A.C. 7:27-19.29(d)2

This section contains a list of measures used to obtain the required emission reductions determined by Equation 1. The measures must result in emission reductions that are real, quantifiable, enforceable, surplus, and are not required to comply with any State or Federal permit, regulation, enforceable agreement, or high electric demand day emission reduction program. Any of the following measures may be considered to achieve the required emission reductions:

- Installation of a control apparatus on an existing HEDD unit that is located in New Jersey, Pennsylvania, Delaware, or Maryland;
- Reduction in the usage of any HEDD unit that is located in New Jersey, Pennsylvania, Delaware, or Maryland;
- Installation of a control apparatus on an existing non-HEDD unit that is located in New Jersey, Pennsylvania, Delaware, or Maryland;
- Commitment to combust natural gas in any HEDD unit that is permitted to combust either natural gas or fuel oil during high electric demand days when it would be economically preferred to combust fuel oil;
- Implementation of an energy efficiency measure in New Jersey, as long as the energy efficiency measure was not committed to prior to May 19, 2009 (the operating date of these amendments);
- Implementation of a demand response measure in New Jersey such as:
 - A measure that shifts load, as long as the demand response measure was not committed to prior to May 19, 2009 (the operating date of these amendments); or
 - A measure that sheds load to clean distributed generation units, as long as the demand response measure was not committed to prior to May 19, 2009 (the operative date of these amendments);
- Implementation of a renewable energy measure in New Jersey, as long as the renewable energy measure was not committed to prior to May 19, 2009 (the operative date of these amendments), and
- Any other measure, approved by the Department that provides NO_x emission reductions and ozone air quality benefits to New Jersey.

As described in Section 1.1 of this protocol, PSEG Fossil's measures to reduce NO_x emissions on HEDDs are:

- Installing water injection to achieve at least 30% NO_x emission reductions on a total of 40 FT4 combustion turbines at Burlington and Essex, which represent approximately 900 MW of electric power generation, and utilizing the water injection systems on these units on HEDDs;
- Placing certain higher NO_x-emitting units on MEG alert status on HEDDs, which means that these units would not be operated unless directed by PJM through the declaration of a MEG alert, in order to prevent or mitigate voltage reductions or interruptions in electric service, or both. The units involved are 32 FT4 turbines in the "Hi-Cap" configuration (Kearny Units No. 10 and 11, Mercer Unit No. 3 and Sewaren Unit No. 6), which represent approximately 500 MW of electric power generation; and
- Promoting load shift on HEDDs from the remaining higher NO_x-emitting sources in PSEG Fossil's generating fleet (Bergen Unit No. 3, Burlington Unit No. 8, Edison Units No. 1, 2, and 3, Hudson Unit No. 1, Kearny Unit No. 9, National Park Unit No. 1, Salem Unit No. 3, Sewaren Units No. 1, 2, 3 and 4) to cleaner PSEG Fossil emission sources (Bergen Units No. 1 and 2, Essex Unit No. 9 and Linden Units No. 1 and 2). It should be noted that the actual operation of the sources listed in this measure is directed by PJM through a cost-based bidding process taking into account the cost of generation, geographic location of the grid's electric needs and the availability of capacity to generate electricity. However, PSEG Power will encourage PJM to call for operation of Bergen Units No. 1 and 2, Essex Unit No. 9 and Linden Units No. 1 and 2 as well as Linden Units No. 5, 6, 7 and 8, Burlington Unit No. 12 and Kearny Unit No. 12 by offering them at a more economic price per MW generally based on unit heat rates before calling for Bergen Unit No. 3, Burlington Unit No. 8, Edison Units No. 1, 2, and 3, Hudson Unit No. 1, Kearny Unit No. 9, National Park Unit No. 1, Salem Unit No. 3, Sewaren Units No. 1, 2, 3 and 4 under normal circumstances. Normal circumstances means PJM would pick up the cleaner/cheaper units in the case of no special circumstances (i.e., no voltage reductions, loss of grid stability, no geographically located load pockets, no brownouts, no blackouts, etc.). It should be noted that there are other factors that affect PJM's dispatching of PSEG Fossil's units (i.e., lengthy startup durations) which could result in dirtier units

being dispatched prior to cleaner units, but are unlikely to significantly contribute to PSEG Fossil's NO_x emissions on HEDDs.

2.5 N.J.A.C. 7:27-19.29(d)3

The 2009 Protocol shall include, at a minimum, the following for each measure:

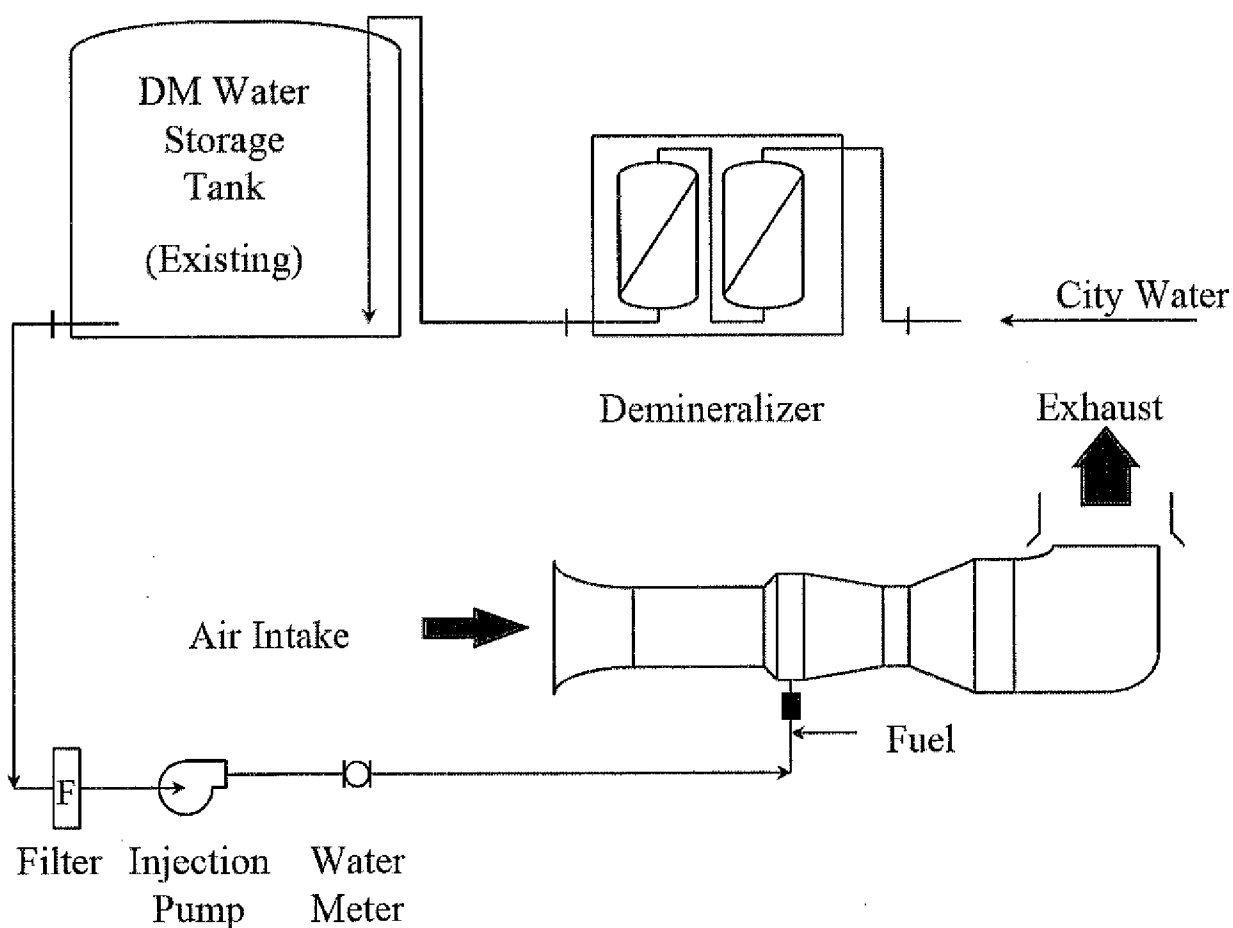
- A complete description of the measure;
- A quantification of the emission reductions from the measure and how the quantification was determined;
- The reasons why this measure is not necessary under any current State or Federal permit, regulation, enforcement agreement, or high electric demand day emission reduction program;
- The methods to be used to calculate and verify emission reductions;
- Monitoring requirements to ensure that the emission reductions determined by Equation 1 are achieved. This shall include, but not be limited to, the following, as applicable, for each electric generating unit:
 - Fuel flow/firing rate instrument to monitor fuel consumption;
 - Continuous Emissions Monitoring systems (CEMs) monitoring of NO_x emissions or monitoring of any parameter that can be used to calculate the NO_x emissions; and
 - Stack testing; and
- A list of records to be maintained pursuant to the requirements of N.J.A.C. 7:27-19.19. The records maintained should be sufficient to document that the emission reductions determined by Equation 1 are achieved. This shall include, but not be limited to the records, as applicable, listed in N.J.A.C. 7:27-19.29(e), for each HEDD.

2.5.1 *Installing Water Injection at Burlington and Essex*

As described above, PSEG Fossil has installed water injection on Burlington Units No. 9 and 11 as well as Essex Units No. 10, 11 and 12. The following section contains the information required by N.J.A.C. 7:27-19.29(d)3 for this NO_x reduction measure.

Requirement: A complete description of the measure.

PSEG Fossil: PSEG Fossil installed water injection systems to control NO_x emissions from the combustion turbines that comprise Burlington Units No. 9 and 11 as well as Essex Units No. 10, 11 and 12. Water injection is a technology that has been demonstrated to effectively suppress NO_x emissions from combustion turbines. The effect of water injection is to increase the thermal mass by dilution and thereby reduce peak temperatures in the flame zone. With water injection, there is an additional benefit of absorbing the latent heat of vaporization from the flame zone. The water injection systems will utilize the existing demineralized (DM) water production equipment and storage tanks at each station. A process flow diagram of the representative water injection systems is reflected below.



Requirement: A quantification of the emission reductions from the measure and how the quantification was determined.

PSEG Fossil: The following table contains a listing of the NO_x emission reductions from water injection on Burlington Units No. 9 and 11 as well as Essex Units No. 10, 11 and 12.

Facility	Unit No.	No. of Turbines	Fuel(s)	NO _x Emissions, lb/MMBtu ^{1,2}			
				Pre-Water Injection (6/13/05-8/7/06)	Pre-Water Injection (6/19/07-8/1/07)	Pre-Water Injection (8/2/07-8/25/07)	Post-Water Injection
Burlington	9	8	No. 2 Fuel Oil	1.2	1.2	0.693	0.41
	11	8	No. 2 Fuel Oil	1.2	1.2	1.2	0.41
Essex	10	8	Natural Gas	0.415	0.415	0.415	0.27
			No. 2 Fuel Oil	1.2	1.2	1.2	0.41
	11	8	Natural Gas	0.445	0.430	0.430	0.27
			No. 2 Fuel Oil	1.2	1.2	1.2	0.41
	12	8	Natural Gas	0.445	0.430	0.430	0.27
			No. 2 Fuel Oil	1.2	1.2	1.2	0.41

Footnotes:

¹ Pre-Water Injection NO_x Emissions correspond to PSEG Fossil's reported NO_x emission rates during each of the HEDD time periods listed above in its EDRs which have been submitted to and approved by USEPA. These rates have been adjusted based on stack testing data.

² Post-Water Injection NO_x Emissions correspond to the permitted emission limits in the Title V Permits for Burlington (Permit No. 45979-BOP090001) and Essex (Permit No. 07627-BOP080002) when operating on water injection.

Requirement: The reasons why this measure is not necessary under any current State or Federal permit, regulation, enforcement agreement, or high electric demand day emission reduction program.

PSEG Fossil: The Title V Permits for Burlington (Permit No. 45979-BOP090001) and Essex (Permit No. 07627-BOP080002) contain applicable regulations and federally enforceable limits on NO_x emissions from Burlington Units No. 9 and 11 and Essex Units No. 10, 11 and 12. These units are not currently under any enforcement agreement nor do they participate in any other high electric demand day emission reduction program. Also, these units comply with their current permitted NO_x emission limits without the use of water injection.

Requirement: The methods to be used to calculate and verify emission reductions.

PSEG Fossil: PSEG Fossil calculated actual uncontrolled NO_x emissions from Burlington Units No. 9 and 11 as well Essex Units No. 10, 11 and 12 on the 39 HEDDs between 2005 and 2007 based on actual operation of these units in mmBtu per day (mmBtu/day) as reflected in the facility's EDR multiplied by the units' pre-water injection NO_x emission rate in lb/mmBtu as reported in the facility's EDR then converted to tons of NO_x using the following equation:

$$\text{mmBtu/day} \times \text{EDR NO}_x \text{ lb/mmBtu} \times \text{ton}/2,000 \text{ lb} = \text{uncontrolled tons of NO}_x$$

The emission reductions were then computed by calculating the actual controlled NO_x emissions from Burlington Units No. 9 and 11 as well Essex Units No. 10, 11 and 12 on HEDDs based on actual operation of these units in mmBtu/day as reflected in the facility's EDR multiplied by the units' post-water injection NO_x emission limits in each facility's Title V Permit then converted to tons of NO_x using the following equation:

$$\text{mmBtu/day} \times \text{WI Permit Limit NO}_x \text{ lb/mmBtu} \times \text{ton}/2,000 \text{ lb} = \text{tons of NO}_x \text{ with water injection}$$

The actual tons of NO_x reduced were then calculated by subtracting the tons of NO_x with water injection from the uncontrolled tons of NO_x using the following equation:

$$\text{uncontrolled tons of NO}_x - \text{tons of NO}_x \text{ with water injection} = \text{tons of NO}_x \text{ reduced}$$

PSEG Fossil will verify the emission reductions achieved from the use of water injection through various stack emissions compliance testing requirements as specified in the Title V Permits.

Requirement: Monitoring requirements to ensure that the emission reductions determined by Equation 1 are achieved. This shall include, but not be limited to, the following, as applicable, for each electric generating unit:

- 1) Fuel flow/firing rate instrument to monitor fuel consumption
- 2) CEMs monitoring of NO_x emissions or monitoring of any parameter that can be used to calculate the NO_x emissions
- 3) Stack testing

PSEG Fossil: 1) and 2) above

Pursuant to the following permit conditions, PSEG Fossil continuously monitors the electrical output of Burlington Units No. 9 and 11 as well as Essex Units No. 10, 11 and 12 when the units employ water injection.

- Burlington Title V Permit No. 45979-BOP090001
 - U5, OS9-16, Ref.#21
 - U7, OS9-16, Ref.#21
- Essex Title V Permit No. 07627-BOP080002
 - U2, OS17-24, Ref.#15
 - U2, OS25-32, Ref.#14
 - U3, OS17-24, Ref.#15
 - U3, OS25-32, Ref.#14
 - U4, OS17-24, Ref.#15
 - U4, OS25-32, Ref.#14

PSEG Fossil computes the hourly actual heat input of these units in accordance with the low mass emission (LME) long term fuel flow methodologies contained in 40 CFR 75.19. The purpose of calculating the heat inputs in this manner is to align the operating parameters and emissions with PSEG Fossil's EDR data.

2) and 3) above

Pursuant to the following permit conditions, PSEG Fossil will conduct an optimization study during year 2009 with water injection to achieve compliance with the NO_x emission limits.

- Burlington Title V Permit No. 45979-BOP090001
 - U5, OS9-16, Ref.#16
 - U7, OS9-16, Ref.#16
- Essex Title V Permit No. 07627-BOP080002
 - U2, OS17-24, Ref.#10
 - U2, OS25-32, Ref.#9
 - U3, OS17-24, Ref.#10
 - U3, OS25-32, Ref.#9
 - U4, OS17-24, Ref.#10
 - U4, OS25-32, Ref.#9

The results of this optimization study will be submitted to the NJDEP's Bureau of Operating Permits.

Also, pursuant to the following stack testing requirements, PSEG Fossil conducts annual full engine stack testing for NO_x (as well as other specified pollutants) on a minimum of two (2) engines from Burlington Units No. 9 and 11 as well as 2 engines from Essex Units No. 10, 11 and 12.

- Burlington Title V Permit No. 45979-BOP090001
 - U5, OS9-16, Ref.#15
 - U5, OS Summary, Ref.#1
 - U7, OS9-16, Ref.#15
 - U7, OS Summary, Ref.#1
 - GR1, Ref.#5
- Essex Title V Permit No. 07627-BOP080002
 - U2, OS17-24, Ref.#9
 - U2, OS25-32, Ref.#8
 - U2, PT2

- U3, OS17-24, Ref.#9
- U3, OS25-32, Ref.#8
- U3, PT10
- U4, OS17-24, Ref.#9
- U4, OS25-32, Ref.#8
- U4, PT18
- GR3, Ref.#5

The testing is conducted in accordance with a protocol approved by the Chief of NJDEP's Bureau of Technical Services (BTS). Testing is performed on fuel oil for Burlington Units No. 9 and 11 as well as both natural gas and fuel oil for Essex Units No. 10, 11 and 12 with and without water injection for each of the 2 engines tested every year. Each year two different engines than the ones tested in previous year(s) are tested at each station, until all the engines have been tested. This test cycle is repeated annually.

Requirement: A list of records to be maintained pursuant to the requirements of N.J.A.C 7:27-19.19. The records maintained should be sufficient to document that the emission reductions determined by Equation 1 are achieved. This shall include, but not be limited to the records, as applicable, listed in N.J.A.C. 7:27-19.29(e).

PSEG Fossil: PSEG Fossil will calculate and record NO_x emissions reductions from this measure using the methodology listed above for all future HEDDs. PSEG Fossil will maintain these records as well as any other records maintained in accordance with N.J.A.C. 7:27-19.29(e) for a period of five years.

2.5.2 Placing Hi-Caps on Maximum Emergency Generation Status

Requirement: A complete description of the measure.

PSEG Fossil: As described above, PSEG Fossil will place 32 FT4 turbines in the "Hi-Cap" configuration (Kearny Units No. 10 and 11, Mercer Unit No. 3 and Sewaren Unit No. 6), which represent approximately 500

MW of electric power generation on MEG alert status on HEDDs. Placing units on MEG alert status means that the units will not operate unless a "maximum generation emergency" is called by PJM. A "maximum generation emergency" is defined in PJM Manual 35: Definitions and Acronyms, Revision: 14, Effective Date: October 21, 2008 at <http://www.pjm.com/documents/manuals/~media/documents/manuals/m35.ashx> as:

"An emergency declared by PJM in which PJM anticipates requesting one or more Capacity Resources to operate at its maximum net or gross electrical power output, subject to the equipment stress limits for such Capacity Resource, in order to manage, alleviate, or end the emergency."

N.J.A.C. 7:27-19.1 defines a MEG alert as:

"A period in which one or more electric generating units are operated at emergency capacity at the direction of the load dispatcher, in order to prevent or mitigate voltage reductions or interruptions in electric service, or both. A MEG alert begins and ends as follows:

- 1) An alert begins when one or more electric generating units are operated at emergency capacity after receiving notice from the load dispatcher, directing the electric generating unit to do so; and
- 2) An alert ends when the electric generating unit ceases operating its electric generating units at emergency capacity as directed by the load dispatcher.

Requirement: A quantification of the emission reductions from the measure and how the quantification was determined.

PSEG Fossil: The following table lists the NO_x emission reductions as a result of placing the Hi-Caps on MEG alert status on those HEDDs that were not maximum generation emergencies.

Facility	Unit No.	No. of Turbines	Fuel(s)	NO _x Emissions, lb/MMBtu ¹	
				Operating	Not Operating
Kearny	10	8	No. 2 Fuel Oil	0.7	0
	11	8	No. 2 Fuel Oil	0.7	0
Mercer	3	8	No. 2 Fuel Oil	1.2	0
Sewaren	6	8	No. 2 Fuel Oil	1.2	0

Footnote:

¹ NO_x Emissions correspond to PSEG Fossil's reported NO_x emission rates during each of the HEDD time periods listed above in its EDRs which have been submitted to and approved by USEPA.

Requirement: The reasons why this measure is not necessary under any current State or Federal permit, regulation, enforcement agreement, or high electric demand day emission reduction program.

PSEG Fossil: The Title V Permits for Kearny (Permit No. 12200-BOP090003), Mercer (Permit No. 61057-BOP070004) and Sewaren (Permit No. 18068-BOP080001) do not contain any requirements to place the above-listed units on MEG alert status on an HEDD. These units are not currently under any enforcement agreement nor do they participate in any other high electric demand day emission reduction program.

Requirement: The methods to be used to calculate and verify emission reductions.

PSEG Fossil: PSEG Fossil calculated actual NO_x emissions from Kearny Units No. 10 and 11, Mercer Unit No. 3 and Sewaren Unit No. 6 on the 39 HEDDs between 2005 and 2007 based on actual operation of these units in mmBtu/day as reflected in the facility's EDR and multiplied by the units' NO_x emission rate in lb/mmBtu as reported

in the facility's EDR then converted to tons of NO_x using the following equation:

$$\text{mmBtu/day} \times \text{EDR NO}_x \text{ lb/mmBtu} \times \text{ton}/2,000 \text{ lb} = \text{uncontrolled tons of NO}_x$$

Since 36 of the 39 HEDDs occurring from 2005 through 2007 were not considered maximum generation emergencies, emission reductions would have occurred on 36 out of 39 HEDDs by not running Kearny Units No. 10 and 11, Mercer Unit No. 3 and Sewaren Unit No. 6 if these units ran. Thus, the emission reductions were computed by subtracting the tons of NO_x that were produced on the HEDDs, which are equivalent to the tons of NO_x listed in the above equation. It should be noted that on the three HEDDs that were considered maximum generation emergencies (July 25, 2005, July 26, 2005 and August 8, 2007), PSEG Fossil would have achieved the required NO_x reductions without taking credit for not running the Hi-Caps by following the measures in this protocol.

Actual reductions in emissions from this measure on future HEDDs cannot be calculated by PSEG Fossil since PSEG Fossil cannot determine if these units would have run on a future HEDD. This is due to the fact that during a future HEDD, the units will be bid into PJM to operate only in the case of a MEG alert being called by PJM. By placing the units in this bid category, they cannot run unless a MEG alert is called by PJM. Thus, the bidding precludes the units from being called by PJM to run and it cannot be assessed if the unit would have run.

Requirement: Monitoring requirements to ensure that the emission reductions determined by Equation 1 are achieved. This shall include, but not be limited to, the following, as applicable, for each electric generating unit:

- 1) Fuel flow/firing rate instrument to monitor fuel consumption

- 2) CEMs monitoring of NO_x emissions or monitoring of any parameter that can be used to calculate the NO_x emissions
- 3) Stack testing

PSEG Fossil: This requirement would not apply to this measure since actual reductions in emissions from this measure on future HEDDs cannot be calculated by PSEG Fossil for the reasons stated above.

Requirement: A list of records to be maintained pursuant to the requirements of N.J.A.C 7:27-19.19. The records maintained should be sufficient to document that the emission reductions determined by Equation 1 are achieved. This shall include, but not be limited to the records, as applicable, listed in N.J.A.C. 7:27-19.29(e).

PSEG Fossil: PSEG Fossil will maintain records that on each HEDD, the Hi-Caps were placed in MEG alert status. PSEG Fossil will also maintain records consisting of a list of days on which a MEG alert was called by PJM and a list of any MEG units that were operated on those days. PSEG Fossil will maintain these records as well as any other records maintained in accordance with N.J.A.C. 7:27-19.29(e) for a period of five years.

2.5.3 Load Shifting

Requirement: A complete description of the measure.

PSEG Fossil: As described above, in the retrospective analysis of 39 HEDDs occurring between 2005 and 2007, PSEG Fossil shifted load on HEDDs from the remaining higher NO_x-emitting sources in PSEG Fossil's generating fleet (Bergen Unit No. 3, Burlington Unit No. 8, Edison Units No. 1, 2, and 3, Hudson Unit No. 1, Kearny Unit No. 9, National Park Unit No. 1, Salem Unit No. 3, Sewaren Units No. 1, 2, 3 and 4) to cleaner PSEG Fossil emission sources (Bergen Units No. 1 and 2, Essex Unit No. 9 and Linden Units No. 1 and 2). It should be noted that the actual operation of the sources listed in this measure is directed by PJM through a cost-based bidding

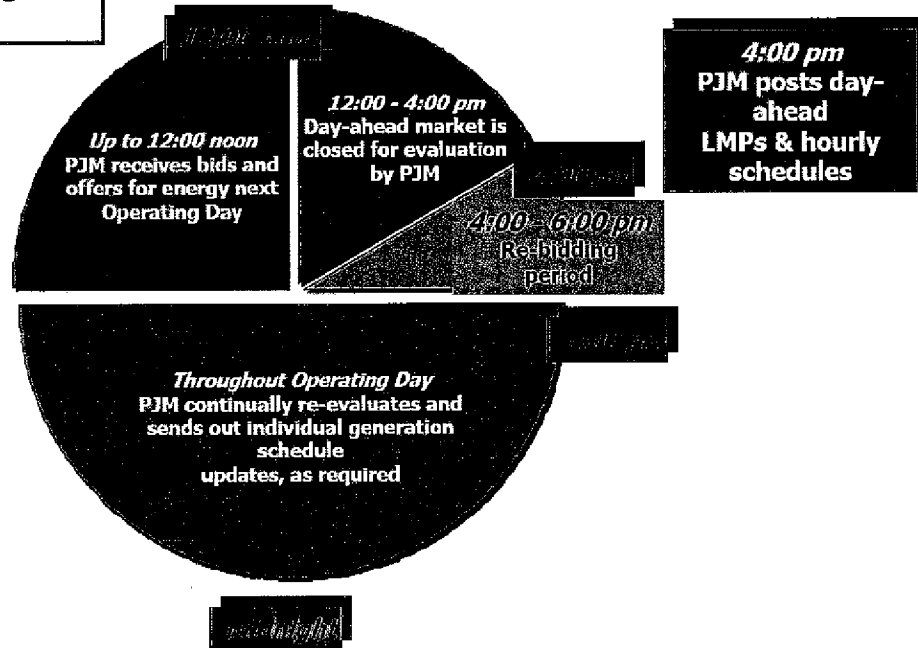
process which is largely based on the cost of generation, geographic location of the grid's electric needs and the availability of capacity to generate electricity. However, PSEG Power will encourage PJM to call for operation of Bergen Units No. 1 and 2, Essex Unit No. 9 and Linden Units No. 1 and 2 as well as Linden Units No. 5, 6, 7 and 8, Burlington Unit No. 12 and Kearny Unit No. 12 by offering them at a more economic price per MW generally based on unit heat rates before calling for Bergen Unit No. 3, Burlington Unit No. 8, Edison Units No. 1, 2, and 3, Hudson Unit No. 1, Kearny Unit No. 9, National Park Unit No. 1, Salem Unit No. 3, Sewaren Units No. 1, 2, 3 and 4 under normal circumstances. Normal circumstances means PJM would pick up the cleaner/cheaper units in the case of no special circumstances (i.e., no voltage reductions, loss of grid stability, no geographically located load pockets, no brownouts, no blackouts, etc.). It should be noted that there are other factors that affect PJM's dispatching of PSEG Fossil's units (i.e., lengthy startup durations) which could result in dirtier units being dispatched prior to cleaner units, but are unlikely to significantly contribute to PSEG Fossil's NO_x emissions on HEDDs.

As described above, PSEG Fossil's units are bid into PJM prior to being called for operation by PJM in accordance with the following schedule:



Day-ahead Market Time Line

All times are
Eastern Prevailing Time



In general, PSEG Fossil's units are bid into PJM for subsequent operation the following day. The bid pricing for PSEG Fossil's units is primarily a function of its generation units' heat rates in Btu per kilowatt-hour (Btu/kW-hr). Basically, the higher the unit heat rate, the more expensive the unit is to operate and would be less likely for PJM to call than a lower cost unit. Appendix B of this protocol contains a supply/dispatch curve for PSEG Fossil's generating fleet that is projected for July 2009.

PSEG Fossil's remaining HEDD units that are not mentioned in the above-listed two NO_x reduction measures are listed as follows with their associated heat rates:

Facility	Unit No.	Estimated Unit Heat Rate, Btu/kW-hr ¹
Bergen	1-2	8,000
	3	15,650
Burlington	8	15,650
	12	9,400
Edison	1-3	15,650
Essex	9	10,000
Hudson	1	10,000
Kearny	9	15,650
	12	9,400
Linden	1-2	10,000
	5-8	10,000
National Park	1	15,650
Salem	3	15,650
Sewaren	1-4	12,000

Footnote:

¹ Estimated unit heat rates are considered representative for the above-listed units.

In its 2005 – 2007 retrospective analysis, PSEG Fossil reconstructed load shifting from units with heat rates greater than or equal to 10,000 Btu/kW-hr to a subset of units with heat rates less than 10,000 Btu/kW-hr. Although Hudson Unit No. 1 has a heat rate of approximately 10,000 Btu/kW-hr, this unit experiences significant operating costs during the startup since it takes about 16 hours to become fully operational. Thus, this unit may not be dispatched solely based on its heat rate. PSEG Fossil took this into account in the load shifting analysis and allowed for load to be shifted from this unit to one of the other clean units.

PSEG Fossil's load shifting analysis did not take into account shifting load to Linden Units No. 5, 6, 7 and 8, Burlington Unit No. 12 and Kearny Unit No. 12. Based on changes in the draft regulations as well as a recently issued draft Significant Modification to the Title V Operating Permits for Burlington and Kearny, these units will be available in the future for load shifting based on their dispatch positions.

The specific units that load was shifted away from and units that load was shifted to are mentioned in the following section.

Requirement: A quantification of the emission reductions from the measure and how the quantification was determined.

PSEG Fossil: The following table contains a listing of the NO_x emission reductions from shifting load from the remaining higher NO_x-emitting sources in PSEG Fossil's generating fleet to cleaner PSEG Fossil emission sources on HEDDs.

Load Shifted From...

Facility	Unit No.	NO _x Emissions, lb/MW-hr	
		Operating ¹	Not Operating
Bergen	3	15.78	0
Burlington	8	17.66	0
Edison	1	4.12	0
	2	4.10	0
	3	4.27	0
Hudson	1	4.55	0
Kearny	9	12.55	0
National Park	1	19.32	0
Salem	3	9.78	0
Sewaren	1	0.91	0
	2	1.32	0
	3	1.93	0
	4	2.02	0

Load Shifted To...

Facility	Unit No.	NO _x Emissions, lb/MW-hr	
		Operating ¹	Not Operating
Bergen	1	0.361	0
	2	0.064	0
Essex	9	0.722	0
Linden	1	0.392	0
	2	0.085	0

Footnote:

¹ NO_x emissions reflected above are representative based on the calculated average lb/MW-hr emissions occurring on each of the 39 HEDDs between 2005 and 2007 by the Department as defined in the proposed rule and vary based on MW produced per the analyses contained in Appendix A. These emissions are presented in this table for informational purposes and should not be used for reporting purposes.

Requirement: The reasons why this measure is not necessary under any current State or Federal permit, regulation, enforcement agreement, or high electric demand day emission reduction program.

PSEG Fossil: This measure is not necessary under any current State or Federal permit, regulation, enforcement agreement, or high electric demand day emission reduction program.

Requirement: The methods to be used to calculate and verify emission reductions.

PSEG Fossil: As explained above, PSEG Fossil calculated actual NO_x emissions in its 2005 – 2007 retrospective analysis by shifting load on HEDDs from Bergen Unit No. 3, Burlington Unit No. 8, Edison Units No. 1, 2, and 3, Hudson Unit No. 1, Kearny Unit No. 9, National Park Unit No. 1, Salem Unit No. 3, Sewaren Units No. 1, 2, 3 and 4, if the units were operating, to Bergen Units No. 1 and 2, Essex Unit No. 9 and Linden Units No. 1 and 2, if these units were not operating at their maximum capacity or not operating at all. PSEG Fossil essentially took each hour during an HEDD and primarily shifted load to the above-listed units that were not operating at their maximum capacity. Once those units received load up to their maximum capacities, PSEG Fossil shifted the remaining load to the above-listed units that were not operating at all. Thus, the emission reductions were computed by subtracting the tons of NO_x that were produced on the HEDDs by Bergen Unit No. 3, Burlington Unit No. 8, Edison Units No. 1, 2, and 3, Hudson Unit No. 1, Kearny Unit No. 9, National Park Unit No. 1, Salem Unit No. 3, Sewaren Units No. 1, 2, 3 and 4, if the units were operating and adding the tons of NO_x that were produced on the HEDDs by Bergen Units No. 1 and 2, Essex Unit No. 9 and Linden Units No. 1 and 2, if these units received load from the above-listed units.

As mentioned above, actual operation of the sources listed in this measure is directed by PJM through a bidding process, however, PSEG Power encourages PJM to call for operation of Bergen Units No. 1 and 2, Essex Unit No. 9 and Linden Units No. 1 and 2 as well as Burlington Unit No. 12 and Kearny Unit No. 12 by offering them at a more economic price per MW based on unit heat rates before

calling for Bergen Unit No. 3, Burlington Unit No. 8, Edison Units No. 1, 2, and 3, Hudson Unit No. 1, Kearny Unit No. 9, National Park Unit No. 1, Salem Unit No. 3, Sewaren Units No. 1, 2, 3 and 4 under normal circumstances. Normal circumstances means PJM would pick up the cleaner/cheaper units in the case of no special circumstances (i.e., no voltage reductions, loss of grid stability, no geographically located load pockets, no brownouts, no blackouts, etc.). It should be noted that there are other factors that affect PJM's dispatching of PSEG Fossil's units (i.e., lengthy startup durations) which could result in dirtier units being dispatched prior to cleaner units, but are unlikely to significantly contribute to PSEG Fossil's NO_x emissions on HEDDs. Thus, PSEG Fossil cannot project emission reductions associated with this measure for future operations since there is no way of knowing what units would operate in the absence of the 2009 Protocol.

Requirement: Monitoring requirements to ensure that the emission reductions determined by Equation 1 are achieved. This shall include, but not be limited to, the following, as applicable, for each electric generating unit:

- 1) Fuel flow/firing rate instrument to monitor fuel consumption
- 2) CEMs monitoring of NO_x emissions or monitoring of any parameter that can be used to calculate the NO_x emissions
- 3) Stack testing

PSEG Fossil: This requirement would not apply to this measure since actual reductions in emissions from this measure on future HEDDs cannot be calculated by PSEG Fossil for the reasons stated above.

Requirement: A list of records to be maintained pursuant to the requirements of N.J.A.C 7:27-19.19. The records maintained should be sufficient to document that the emission reductions determined by Equation 1 are achieved. This shall include, but not be limited to the records, as applicable, listed in N.J.A.C. 7:27-19.29(e).

PSEG Fossil: This requirement would not apply to this measure since actual reductions in emissions from this measure on future HEDDs cannot be calculated by PSEG Fossil for the reasons stated above. Thus, there would not be any records for this measure on future HEDDs. However, for informational purposes, records will kept to document the reason for Bergen Unit No. 3, Burlington Unit No. 8, Edison Units No. 1, 2, and 3, Hudson Unit No. 1, Kearny Unit No. 9, National Park Unit No. 1, Salem Unit No. 3, Sewaren Units No. 1, 2, 3 and 4 units operating on HEDDs as well as their emissions and time of operation.

2.6 N.J.A.C. 7:27-19.29(k)

N.J.A.C. 7:27-19.29(k) requires that PSEG Fossil submit an annual report, for calendar years 2009 through 2014, to the Department, by January 30th of the following year. In accordance with N.J.A.C. 7:27-29(b)4ii, the annual report will include a demonstration that PSEG Fossil implemented the 2009 Protocol, or a modified protocol approved by the Department, on each HEDD during the calendar year of the applicable annual report. This demonstration will include the following:

- Written documentation that water injection was used if Burlington Units No. 9 and 11 as well as Essex Units No. 10, 11 and 12 operate on an HEDD, as well as calculations of emission reductions.
- Documentation that Kearny Units No. 10 and 11, Mercer Unit No. 3, and Sewaren Unit No. 6 were placed in MEG alert status.
- Documentation if any PSEG Fossil units were place on MEG alert status, whether Kearny Units No. 10 and 11, Mercer Unit No. 3 and Sewaren Unit No. 6 operated as well as their time of operation.
- Documentation on reasons why Bergen Unit No. 3, Burlington Unit No. 8, Edison Units No. 1, 2, and 3, Hudson Unit No. 1, Kearny Unit No. 9, National Park Unit No. 1, Salem Unit No. 3, Sewaren Units No. 1, 2, 3 and 4 operated during an HEDD and their time of operation.

APPENDIX A

Summary of Retrospective HEDD Emission Reductions on Representative Days (2005-2007)

Summary of 2009 Protocol Calculations for 2005-2007 HEDDs
Emission Reduction (ER) Calculations Pursuant to N.J.A.C. 7:27-19.29(c)

High Electric Demand Day: 6/28/2005

NO MEG ALERT CALLED

$$ER = \left(\frac{BE}{EF} \right) * RF$$

ER Calculation: 3.92 tons
 NOX Reduced: 6.61 tons

where

BE = sum of NOX emissions for all HEDD units on this day 12.67
 RF = Sum of Unit Reduction Factors on July 26, 2005 18.34
 EF = Sum of NOX emissions for all HEDD units on July 26, 2005 59.28

NOX Reduction Measure #1: New Water Injection Installations

Station	Emission Unit ID	Module ID	MWh (net)	Heat Input (mmbtu)	Historical NOX Emissions (tons)	Historical NOX Rate (lb/mmbtu)	HPWI NOX Rate (lb/mmbtu)	HPWI NOX Emissions (tons)	NOX Savings (tons)
Burlington	U5	91	-	-	-	-	0.410	-	-
		92	2	29	0.02	1.201	0.410	0.01	0.01
		93	1	15	0.01	1.197	0.410	0.00	0.01
		94	-	-	-	-	0.410	-	-
Burlington	U7	111	1	15	0.01	1.197	0.410	0.00	0.01
		112	1	15	0.01	1.197	0.410	0.00	0.01
		113	1	15	0.01	1.197	0.410	0.00	0.01
		114	1	15	0.01	1.197	0.410	0.00	0.01
Essex	U2	111	-	-	-	-	0.270	-	-
		112	-	-	-	-	0.270	-	-
		113	-	-	-	-	0.270	-	-
		114	-	-	-	-	0.270	-	-
Essex	U3	111	254	3,975	0.88	0.445	0.270	0.54	0.35
		112	271	4,241	0.94	0.445	0.270	0.57	0.37
		113	271	4,241	0.94	0.445	0.270	0.57	0.37
		114	271	4,241	0.94	0.445	0.270	0.57	0.37
Essex	U4	111	211	3,302	0.73	0.445	0.270	0.45	0.29
		112	4	63	0.01	0.448	0.270	0.01	0.01
		113	198	3,099	0.69	0.445	0.270	0.42	0.27
		114	133	2,081	0.46	0.445	0.270	0.28	0.18
TOTALS:			1,620	25,345	5.68			3.43	2.25

NOX Reduction Measure #2: Hi-Cap Units placed on Maximum Emergency Generation Status

Station	Emission Unit ID	Module ID	MWh (net)	Heat Input (mmbtu)	Historical NOX Emissions (tons)	Historical NOX Rate (lb/mmbtu)	MEG NOX Rate (lb/mmbtu)	MEG NOX Emissions (tons)	NOX Savings (tons)
Kearny	U5	10	-	-	-	-	0.000	-	-
	U6	11	-	-	-	-	0.000	-	-
Mercer	U5	3	-	-	-	-	0.000	-	-
Sewaren	U7	6	-	-	-	-	0.000	-	-
TOTALS:			-	-	-			-	-

NOX Reduction Measure #3: Load Shifting to Cleaner Units

MW Available to Shift (MW)	Available Room (MW)	Shifted MW	"Full Shift" NOX Savings (tons)	"Partial Shift" NOX Savings (tons)	Total NOX Savings (tons)
4,123	9,384	3,238	2.38	1.98	4.36
TOTALS:					4.36

Notes:

- Historical Emissions Data is from quarterly Electronic Data Report submittals to EPA.
- For purposes of compliance with the required ER, on days when MEG status is active Measure #2 is considered to have not been taken.
- Load Shifting is described in an attachment to this sheet.

HEDD:
6/28/2005

[illegible]

2,381 = Tons Reduced from Full Load Shifting
1,980 = Tons Reduced from Partial Load Shifting
4,361 = Total Tons Reduced from Load Shifting

**Summary of 2009 Protocol Calculations for 2005-2007 HEDDs
Emission Reduction (ER) Calculations Pursuant to N.J.A.C. 7:27-19.29(c)**

High Electric Demand Day: 7/26/2005

MEG ALERT CALLED

$$ER = \left(\frac{BE}{EF} \right) * RF$$

ER Calculation: 18.34 tons

where

BE = sum of NOX emissions for all HEDD units on this day

59.28

NOX Reduced: 30.14 tons

RF = Sum of Unit Reduction Factors on July 26, 2005

18.34

EF = Sum of NOX emissions for all HEDD units on July 26, 2005

59.28

NOX Reduction Measure #1: New Water Injection Installations

Station	Emission Unit ID	Module ID	MWh (net)	Heat Input (mmbtu)	Historical NOX Emissions (tons)	Historical NOX Rate (lb/mmbtu)	HPWI NOX Rate (lb/mmbtu)	HPWI NOX Emissions (tons)	NOX Savings (tons)
Burlington	U5	91	385	5,453	3.27	1.200	0.410	1.12	2.15
		92	180	2,390	1.43	1.200	0.410	0.49	0.94
		93	170	2,540	1.52	1.200	0.410	0.52	1.00
		94	201	3,003	1.80	1.200	0.410	0.62	1.19
Burlington	U7	111	104	1,554	0.93	1.200	0.410	0.32	0.61
		112	170	2,540	1.52	1.200	0.410	0.52	1.00
		113	135	2,017	1.21	1.200	0.410	0.41	0.80
		114	127	1,897	1.14	1.200	0.410	0.39	0.75
Essex	U2	111	314	4,803	1.00	0.415	0.270	0.65	0.35
		112	308	4,711	0.98	0.415	0.270	0.64	0.34
		113	314	4,803	1.00	0.415	0.270	0.65	0.35
		114	158	2,417	0.50	0.415	0.270	0.33	0.18
Essex	U3	111	400	6,119	1.36	0.445	0.270	0.83	0.54
		112	404	6,180	1.38	0.445	0.270	0.83	0.54
		113	378	5,782	1.29	0.445	0.270	0.78	0.51
		114	414	6,333	1.41	0.445	0.270	0.85	0.55
Essex	U4	111	504	7,710	1.72	0.445	0.270	1.04	0.67
		112	517	7,909	1.76	0.445	0.270	1.07	0.69
		113	498	7,618	1.70	0.445	0.270	1.03	0.67
		114	489	7,480	1.66	0.445	0.270	1.01	0.65
TOTALS:			6,130	93,260	28.58			14.09	14.49

NOX Reduction Measure #2: Hi-Cap Units placed on Maximum Emergency Generation Status

Station	Emission Unit ID	Module ID	MWh (net)	Heat Input (mmbtu)	Historical NOX Emissions (tons)	Historical NOX Rate (lb/mmbtu)	MEG NOX Rate (lb/mmbtu)	MEG NOX Emissions (tons)	NOX Savings (tons)
Kearny	U5	10	288	4,613	1.61	0.700	0.700	1.61	-
	U6	11	760	13,083	4.58	0.700	0.700	4.58	-
Mercer	U5	3	-	-	-	-	0.000	-	-
Sewaren	U7	6	-	-	-	-	0.000	-	-
TOTALS:			1,028	17,696	6.19			6.19	-

NOX Reduction Measure #3: Load Shifting to Cleaner Units

MW Available to Shift (MW)	Available Room (MW)	Shifted MW	"Full Shift" NOX Savings (tons)	"Partial Shift" NOX Savings (tons)	Total NOX Savings (tons)
13,733	13,107	9,935	4.23	11.42	15.65
TOTALS:					15.65

Notes:

- Historical Emissions Data is from quarterly Electronic Data Report submittals to EPA.
- For purposes of compliance with the required ER, on days when MEG status is active Measure #2 is considered to have not been taken.
- Load Shifting is described in an attachment to this sheet.

HEDD:
7/26/2005

Units Showing NW	Row	Cap	(barns)	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
Bergen 3	3		14,755	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	5	15	-	-	-	-	
Burlington 8	4			10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Edison 1	5		4,036	3	-	-	-	-	-	-	-	-	-	24	121	120	121	118	120	117	118	117	119	120	120	123	112	92	
Edison 2	6		4,036	4	-	-	-	-	-	-	-	-	-	-	-	-	116	116	115	115	116	115	116	117	125	125	144	-	
Edison 3	7		4,036	5	-	-	-	-	-	-	-	-	-	-	-	-	26	119	117	117	117	117	117	118	122	120	122	128	
Hudson 1	8		2,429	8	155	209	199	150	141	139	136	137	184	263	275	282	295	302	357	357	356	307	305	223	242	239	200	140	
Keams 3	9		12,045	9	-	-	-	-	-	-	-	-	-	-	-	-	12	11	16	-	-	-	-	-	-	-	-	-	
National Park	13			10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	9	1	223	242	239	200	140	
Sam 3	14			10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Sawyer 1	15			10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Sawyer 2	16		2,199	9	21	20	21	20	19	20	21	84	82	83	83	82	21	91	21	91	92	78	83	90	61	24	30	10	
Sawyer 3	17		3,290	7	-	-	-	-	-	-	13	57	57	57	57	60	91	83	82	93	82	89	85	86	87	56	30	10	
Sawyer 4	18		3,575	6	24	1	2,557	2,582	2,351	2,566	2,463	2,630	2,662	2,610	19	82	81	85	102	103	133	122	133	102	105	101	161	86	
Summit of NW	23			11	11,735	213	207	230	1,150	180	169	169	171	214	262	465	828	506	504	500	552	441	552	550	589	588	588	411	10

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Partial Shift	lb/mwh	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Flue Space			0	0	0	0	0	0	0	0	0	0	0	0	250	133	616	605	557	551	545	545	545	515	475	
MW	12.046	2	0	0	0	0	0	0	0	0	0	0	0	0	0	12	11	15	7	9	1	0	5	14	15	12
MW Shifted			0	0	0	0	0	0	0	0	0	0	0	0	0	11	15	7	9	1	0	0	5	14	15	12
NOx Save:	0.694		0.000	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.071	0.095	0.049	0.041	0.053	0.058	0.000	0.029	0.083	0.088	0.059	

Partial Shift	lb/mwh	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
Free Spec			0	0	0	0	0	0	0	0	0	0	0	0	0	200	195	601	601	598	581	569	561	543	539	550	400
MW	4.036	3	0	0	0	0	0	0	0	0	0	24	12	126	123	118	117	118	117	119	128	123	123	123	123	112	112
MW Shifted			0	0	0	0	0	0	0	0	0	0	0	0	0	121	116	120	117	116	117	119	120	120	123	112	112
NOx Seval	2.891		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.230	0.246	0.298	0.222	0.224	0.223	0.226	0.226	0.227	0.233	0.119	0.117

Partial Shift	lb/mwh	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Free Spica			0	0	0	0	0	0	0	0	0	0	0	0	139	95	57	454	480	474	477	571	723	272	358	338
MW	4.036	4	0	0	0	0	0	0	0	0	0	0	0	0	0	116	110	110	110	115	110	117	126	129	44	4
MW Shifed			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	115	115	113	128	125	44	4
ROX Sealed	2.000		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.125	0.204	0.210	0.220	0.216	0.221	0.223	0.237	0.257	0.460	0.000

Partial Shift	10mwh	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Free Space			0	0	0	0	0	0	0	0	0	0	0	0	0	0	453	350	364	359	301	454	598	87	344	338
MM	4.036	5	0	0	0	0	0	0	0	0	0	0	0	0	0	26	116	117	117	117	117	118	122	120	122	122
MM Shifted			0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	117	117	117	117	118	122	122	122
MM Shared			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MM Spill	2.244		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.049	0.000	0.222	0.222	0.222	0.222	0.232	0.225	0.231	0.155	0.229

Partial Shift	lb/mwh	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Free Space			0	0	0	0	0	0	0	0	0	0	0	0	113	0	339	252	247	242	244	338	479	0	222	219
MW	3.575	B	24	1	0	0	0	0	0	0	0	18	82	81	84	102	103	100	102	103	102	100	101	101	58	200
MW Shaded			0	0	0	0	0	0	0	0	0	0	0	0	84	0	103	103	102	103	102	100	101	0	58	200
NOx Sulfur	1.468		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.140	0.000	0.172	0.172	0.170	0.172	0.170	0.107	0.168	0.000	0.000	0.038

Perital Shift	Jobmwh	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Free Space			0	0	0	0	0	0	0	0	0	0	0	0	28	0	233	146	145	139	142	236	375	0	58	183
MW	3.288	7	0	0	0	0	0	0	0	13	57	57	53	57	60	91	93	92	93	89	88	86	27	58	183	183
MW Shifted			0	0	0	0	0	0	0	0	0	0	0	0	29	0	29	93	92	91	89	88	86	0	58	30
NOX Saver	1.138		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.044	0.000	0.140	0.142	0.141	0.136	0.135	0.131	0.000	0.000	0.045	

Partial Shift	lbm/hw	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Free Space			0	0	0	0	0	0	0	0	0	0	0	0	0	0	141	56	534	50	53	148	288	0	106	163
MW	2.429	8	159	209	199	160	141	130	139	137	184	203	275	282	269	302	309	317	338	357	305	229	242	268	261	260
MW Shaded			0	0	0	0	0	0	0	0	0	0	0	0	0	0	141	56	534	50	53	148	242	0	106	140
NOX saved	1.080		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.145	0.061	0.556	0.056	0.056	0.163	0.364	0.000	0.116	0.151

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4,231 = Tons Reduced from Full Load Shifting
11,422 = Tons Reduced from Partial Load Shifting
15,653 = Total Tons Reduced from Load Shifting

**Summary of 2009 Protocol Calculations for 2005-2007 HEDDs
Emission Reduction (ER) Calculations Pursuant to N.J.A.C. 7:27-19.29(c)**

High Electric Demand Day: 7/27/2005

NO MEG ALERT CALLED

$$ER = \left(\frac{BE}{EF} \right) * RF$$

ER Calculation: 18.36 tons

where

BE = sum of NOX emissions for all HEDD units on this day

59.32

NOX Reduced: 37.10 tons

RF = Sum of Unit Reduction Factors on July 26, 2005

18.34

EF = Sum of NOX emissions for all HEDD units on July 26, 2005

59.28

NOX Reduction Measure #1: New Water Injection Installations

Station	Emission Unit ID	Module ID	MWh (net)	Heat Input (mmbtu)	Historical NOX Emissions (tons)	Historical NOX Rate (lb/mmbtu)	HPWI NOX Rate (lb/mmbtu)	HPWI NOX Emissions (tons)	NOX Savings (tons)
Burlington	U5	91	291	4,347	2.81	1.200	0.410	0.89	1.72
		92	254	3,795	2.28	1.200	0.410	0.78	1.50
		93	234	3,496	2.10	1.200	0.410	0.72	1.38
		94	265	3,959	2.38	1.200	0.410	0.81	1.56
Burlington	U7	111	183	2,734	1.64	1.200	0.410	0.58	1.08
		112	218	3,257	1.95	1.200	0.410	0.67	1.29
		113	178	2,659	1.60	1.200	0.410	0.55	1.05
		114	168	2,510	1.51	1.200	0.410	0.51	0.99
Essex	U2	111	349	5,339	1.11	0.415	0.270	0.72	0.39
		112	347	5,308	1.10	0.415	0.270	0.72	0.38
		113	330	5,048	1.05	0.415	0.270	0.68	0.37
		114	176	2,893	0.56	0.415	0.270	0.36	0.20
Essex	U3	111	435	6,654	1.48	0.445	0.270	0.90	0.58
		112	399	6,104	1.36	0.445	0.270	0.82	0.53
		113	329	5,033	1.12	0.445	0.270	0.68	0.44
		114	462	7,067	1.57	0.445	0.270	0.95	0.62
Essex	U4	111	446	6,823	1.52	0.445	0.270	0.92	0.60
		112	478	7,312	1.63	0.445	0.270	0.99	0.64
		113	474	7,251	1.61	0.445	0.270	0.98	0.63
		114	390	5,966	1.33	0.445	0.270	0.81	0.52
TOTALS:			6,406	97,354	31.49			15.02	16.47

NOX Reduction Measure #2: Hi-Cap Units placed on Maximum Emergency Generation Status

Station	Emission Unit ID	Module ID	MWh (net)	Heat Input (mmbtu)	Historical NOX Emissions (tons)	Historical NOX Rate (lb/mmbtu)	MEG NOX Rate (lb/mmbtu)	MEG NOX Emissions (tons)	NOX Savings (tons)
Kearny	U5	10	-	-	-	-	0.000	-	-
	U6	11	453	7,798	2.73	0.700	0.000	-	2.73
Mercer	U5	3	78	1,651	0.99	1.200	0.000	-	0.99
Sewaren	U7	6	88	1,758	1.05	1.200	0.000	-	1.05
TOTALS:			619	11,206	4.77			-	4.77

NOX Reduction Measure #3: Load Shifting to Cleaner Units

MW Available to Shift (MW)	Available Room (MW)	Shifted MW	"Full Shift" NOX Savings (tons)	"Partial Shift" NOX Savings (tons)	Total NOX Savings (tons)
12,697	13,154	9,681	4.95	10.91	15.86
TOTALS:					15.86

Notes:

- Historical Emissions Data is from quarterly Electronic Data Report submittals to EPA.
- For purposes of compliance with the required ER, on days when MEG status is active Measure #2 is considered to have not been taken.
- Load Shifting is described in an attachment to this sheet.

HEDD:
7/27/2005

[illegible]

4.953 = Tons Reduced from Full Load Shifting
10.905 = Tons Reduced from Partial Load Shifting
15.859 = Total Tons Reduced from Load Shifting

**Summary of 2009 Protocol Calculations for 2005-2007 HEDDs
Emission Reduction (ER) Calculations Pursuant to N.J.A.C. 7:27-19.29(c)**

High Electric Demand Day: 8/2/2006

NO MEG ALERT CALLED

$$ER = \left(\frac{BE}{EF} \right) * RF$$

ER Calculation: 18.24 tons

where

BE = sum of NOX emissions for all HEDD units on this day

58.94

NOX Reduced: 32.80 tons

RF = Sum of Unit Reduction Factors on July 26, 2005

18.34

EF = Sum of NOX emissions for all HEDD units on July 26, 2005

59.28

NOX Reduction Measure #1: New Water Injection Installations

Station	Emission Unit ID	Module ID	MWh (net)	Heat Input (mmbtu)	Historical NOX Emissions (tons)	Historical NOX Rate (lb/mmbtu)	HPWI NOX Rate (lb/mmbtu)	HPWI NOX Emissions (tons)	NOX Savings (tons)
Burlington	U5	91	-	-	-	-	0.410	-	-
		92	354	5,126	3.08	1.200	0.410	1.05	2.02
		93	337	4,880	2.93	1.200	0.410	1.00	1.93
		94	394	5,705	3.42	1.200	0.410	1.17	2.25
Burlington	U7	111	-	-	-	-	0.410	-	-
		112	366	5,300	3.18	1.200	0.410	1.09	2.09
		113	-	-	-	-	0.410	-	-
		114	-	-	-	-	0.410	-	-
Essex	U2	111	416	6,018	1.25	0.415	0.270	0.81	0.44
		112	397	5,743	1.19	0.415	0.270	0.78	0.42
		113	418	6,047	1.25	0.415	0.270	0.82	0.44
		114	426	6,162	1.28	0.415	0.270	0.83	0.45
Essex	U3	111	340	4,918	1.09	0.445	0.270	0.66	0.43
		112	159	2,300	0.51	0.445	0.270	0.31	0.20
		113	418	6,047	1.35	0.445	0.270	0.82	0.53
		114	376	5,439	1.21	0.445	0.270	0.73	0.48
Essex	U4	111	363	5,251	1.17	0.445	0.270	0.71	0.46
		112	326	4,716	1.05	0.445	0.270	0.64	0.41
		113	219	3,188	0.70	0.445	0.270	0.43	0.28
		114	357	5,165	1.15	0.445	0.270	0.70	0.45
TOTALS:			5,666	81,982	25.81			12.54	13.28

NOX Reduction Measure #2: Hi-Cap Units placed on Maximum Emergency Generation Status

Station	Emission Unit ID	Module ID	MWh (net)	Heat Input (mmbtu)	Historical NOX Emissions (tons)	Historical NOX Rate (lb/mmbtu)	MEG NOX Rate (lb/mmbtu)	MEG NOX Emissions (tons)	NOX Savings (tons)
Kearny	U5	10	304	5,399	1.89	0.700	0.000	-	1.89
	U6	11	581	10,317	3.61	0.700	0.000	-	3.61
Mercer	U5	3	-	-	-	-	0.000	-	-
Sewaren	U7	6	4	82	0.05	1.200	0.000	-	0.05
TOTALS:			889	15,798	5.55			-	5.55

NOX Reduction Measure #3: Load Shifting to Cleaner Units

MW Available to Shift (MW)	Available Room (MW)	Shifted MW	"Full Shift" NOX Savings (tons)	"Partial Shift" NOX Savings (tons)	Total NOX Savings (tons)
16,085	13,695	8,016	3.24	10.74	13.98
TOTALS:					13.98

Notes:

- Historical Emissions Data is from quarterly Electronic Data Report submittals to EPA.
- For purposes of compliance with the required ER, on days when MEG status is active Measure #2 is considered to have not been taken.
- Load Shifting is described in an attachment to this sheet.

Load Shifting to Clean Units

HEDD:
8/2/2006

Units Receiving MW	Row	Cap	lb/mwh	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Beressa 1	23	675	0.016		340	72	103	208	207	232	399	348	381	393	544	507	603	506	607	604	605	600	617	599	602	564	590	440
Beressa 2	26	650	0.036		366	412	397	358	297	350	391	390	411	492	507	508	605	506	509	605	604	605	605	605	606	498	423	367
Beressa 3	28	81	0.603		2	-	-	-	-	-	-	-	-	-	40	69	95	64	64	64	64	65	65	65	66	66	67	67
London 1	34	693	0.029		467	434	416	389	391	402	401	377	482	526	570	575	575	530	525	525	533	573	560	598	536	416	393	
London 2	35	693	0.031		472	433	416	361	351	402	401	387	485	550	577	574	569	444	432	431	432	389	397	397	397	416	393	
Recon				13.886	655	1,050	1,070	1,116	1,215	1,025	650	911	702	447	254	160	174	343	358	368	364	371	458	172	167	224	418	693
lb/mwh avg					0.163	0.083	0.077	0.127	0.133	0.130	0.170	0.167	0.162	0.149	0.188	0.206	0.208	0.220	0.222	0.221	0.221	0.217	0.205	0.264	0.297	0.297	0.293	0.278

Units Giving MW	Row	Cap	lb/mwh	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
Beressa 3	2	81	14,629	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Beressa 1	23	675	12,375	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Edison 1	5	4,022	6	107	39	-	-	-	-	-	-	-	17	50	98	85	97	101	101	100	100	100	102	102	98	103	104	106		
Edison 2	6	4,021	7	-	-	-	-	-	-	-	-	-	-	-	-	12	84	88	85	87	87	86	89	89	80	90	92	92		
Edison 3	7	4,021	8	-	-	-	-	-	-	-	-	-	-	-	-	10	84	85	80	74	74	73	76	80	74	70	73	73		
Hudson 1	8	1,953	11	222	223	223	223	223	223	223	223	223	228	225	321	321	322	321	321	321	321	321	321	321	320	290	292	291	292	
Norfolk	9	1,953	12	222	223	223	223	223	223	223	223	223	228	225	321	321	322	321	321	321	321	321	321	321	321	320	290	292	291	292
Norfolk Park	13	15,673	1	-	-	-	-	-	-	-	-	-	-	-	3	19	15	15	15	15	15	15	15	15	10	10	10	10		
Salem 3	14	5,189	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Sewaren 1	15	1,512	13	26	21	22	20	19	20	20	20	26	42	51	65	82	92	91	92	91	91	91	92	91	91	91	71	48		
Sewaren 2	16	2,112	10	26	27	27	22	23	23	21	21	20	91	87	91	95	95	97	96	97	96	97	96	97	96	95	75	53		
Sewaren 3	17	1,686	12	22	31	31	20	18	19	19	25	24	32	36	37	38	41	45	47	45	47	45	47	45	47	45	23	24		
Sewaren 4	18	2,332	9	22	39	39	29	29	24	45	43	38	87	82	87	83	84	97	95	96	96	97	94	95	92	72	40			
lb/mwh avg					2,518	2,221	2,052	2,028	1,995	1,987	2,038	2,076	2,145	2,204	2,505	2,652	2,740	2,970	3,233	3,491	3,399	3,521	3,267	3,040	3,043	3,143	3,201			
Sum of MW				16,885	495	350	357	324	309	307	334	390	384	553	701	793	891	941	969	905	975	870	921	800	661	805	699			

Full Shift	Row	Total	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Flt Swap?		(ton)																								
Nox Reduction		3,240	0.540	0.410	0.384	0.308	0.288	0.285	0.311	0.334	0.391															

Partial Shift	lb/mwh	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
	16,875	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	17,375	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	14	15	16	0	0	0	0	0	
	14,829	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	14	14	14	14	14	14	14	15	15	
	12,432	4	0	0	0	0	0	0	0	0	0	0	3	3	15	16	16	16	15	15	15	15	15	15	15	15	
	5,189	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	20	34	21	20	0	0	0		
	4,022	6	107	39	0	0	0	0	0	0	0	0	171	50	58	88	97	101	101	100	100	100	102	98	103	104	108
	4,021	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	84	85	86	87	87	87	89	89	90	90
	4,021	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	84	80	75	74	74	73	76	78	78	
	2,029	9	62	39	62	36	26	24	63	63	64	63	62	81	82	84	91	98	98	98	98	98	98	98	98	98	
	2,112	10	26	27	27	22	23	23	21	21	20	91	87	91	95	95	97	96	97	96	97	96	97	96	95	75	
	1,953	11	222	223	223	223	223	223	223	223	223	228	225	321	321	322	321	321	321	321	321	321	321	321	320	290	292
	1,686	12	22	31	31	20	16	19	25	24	32	36	37	38	41	45	47	45	47	45	47	45	47	45	23	24	
	1,512	13	26	21	22	20	19	20	20	20	26	42	51	65	82	92	91	91	91	91	92	91	91	91	71	48	

Partial Shift	lb/mwh	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
Free Space			0	0	0	0	0	0	0	0	0	0	447	254	160	174	343	358	353	354	317	455	172	157	224	414	593
MW	15,875	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
MW Shifted			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
NOx Saved	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.022	0.049	0.17	0.47	0.070	0.147	0.148	0.255	0.035	0.005	0.055	

Partial Shift	Row	Cap	lb/mwh	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Free Space	1	16,875	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
MW	2	17,375	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
MW Shifted	3	14,829	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
NOx Saved	4	12,432	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Free Space	5	1,189	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
MW	6	4,022	6	107	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

**Summary of 2009 Protocol Calculations for 2005-2007 HEDDs
Emission Reduction (ER) Calculations Pursuant to N.J.A.C. 7:27-19.29(c)**

High Electric Demand Day: 7/11/2007

NO MEG ALERT CALLED

$$ER = \left(\frac{BE}{EF} \right) * RF$$

ER Calculation: 3.26 tons
NOX Reduced: 6.84 tons

where

BE = sum of NOX emissions for all HEDD units on this day 10.53
RF = Sum of Unit Reduction Factors on July 26, 2005 18.34
EF = Sum of NOX emissions for all HEDD units on July 26, 2005 59.28

NOX Reduction Measure #1: New Water Injection Installations

Station	Emission Unit ID	Module ID	MWh (net)	Heat Input (mmbtu)	Historical NOX Emissions (tons)	Historical NOX Rate (lb/mmbtu)	HPWI NOX Rate (lb/mmbtu)	HPWI NOX Emissions (tons)	NOX Savings (tons)
Burlington	U5	91	-	-	-	-	0.410	-	-
		92	-	-	-	-	0.410	-	-
		93	-	-	-	-	0.410	-	-
		94	-	-	-	-	0.410	-	-
Burlington	U7	111	-	-	-	-	0.410	-	-
		112	-	-	-	-	0.410	-	-
		113	-	-	-	-	0.410	-	-
		114	-	-	-	-	0.410	-	-
Essex	U2	111	109	1,894	0.35	0.415	0.270	0.23	0.12
		112	78	1,213	0.25	0.415	0.270	0.16	0.09
		113	139	2,161	0.45	0.415	0.270	0.29	0.16
		114	138	2,145	0.45	0.415	0.270	0.29	0.16
Essex	U3	111	-	-	-	-	0.270	-	-
		112	-	-	-	-	0.270	-	-
		113	-	-	-	-	0.270	-	-
		114	-	-	-	-	0.270	-	-
Essex	U4	111	150	2,332	0.50	0.430	0.270	0.31	0.19
		112	136	2,114	0.45	0.430	0.270	0.29	0.17
		113	165	2,565	0.55	0.430	0.270	0.35	0.21
		114	81	1,259	0.27	0.430	0.270	0.17	0.10
TOTALS:			996	15,483	3.27			2.09	1.18

NOX Reduction Measure #2: Hi-Cap Units placed on Maximum Emergency Generation Status

Station	Emission Unit ID	Module ID	MWh (net)	Heat Input (mmbtu)	Historical NOX Emissions (tons)	Historical NOX Rate (lb/mmbtu)	MEG NOX Rate (lb/mmbtu)	MEG NOX Emissions (tons)	NOX Savings (tons)
Keamy	U5	10	115	2,183	0.76	0.700	0.000	-	0.76
	U6	11	201	3,815	1.34	0.700	0.000	-	1.34
Mercer	U5	3	39	677	0.41	1.200	0.000	-	0.41
Sewaren	U7	6	-	-	-	-	0.000	-	-
TOTALS:			355	6,675	2.51			-	2.51

NOX Reduction Measure #3: Load Shifting to Cleaner Units

MW Available to Shift (MW)	Available Room (MW)	Shifted MW	"Full Shift" NOX Savings (tons)	"Partial Shift" NOX Savings (tons)	Total NOX Savings (tons)
3,387	21,607	3,387	3.15	-	3.15
TOTALS:					3.15

Notes:

- Historical Emissions Data is from quarterly Electronic Data Report submittals to EPA.
- For purposes of compliance with the required ER, on days when MEG status is active Measure #2 is considered to have not been taken.
- Load Shifting is described in an attachment to this sheet.

HEDD:
7/11/2007

[illegible]

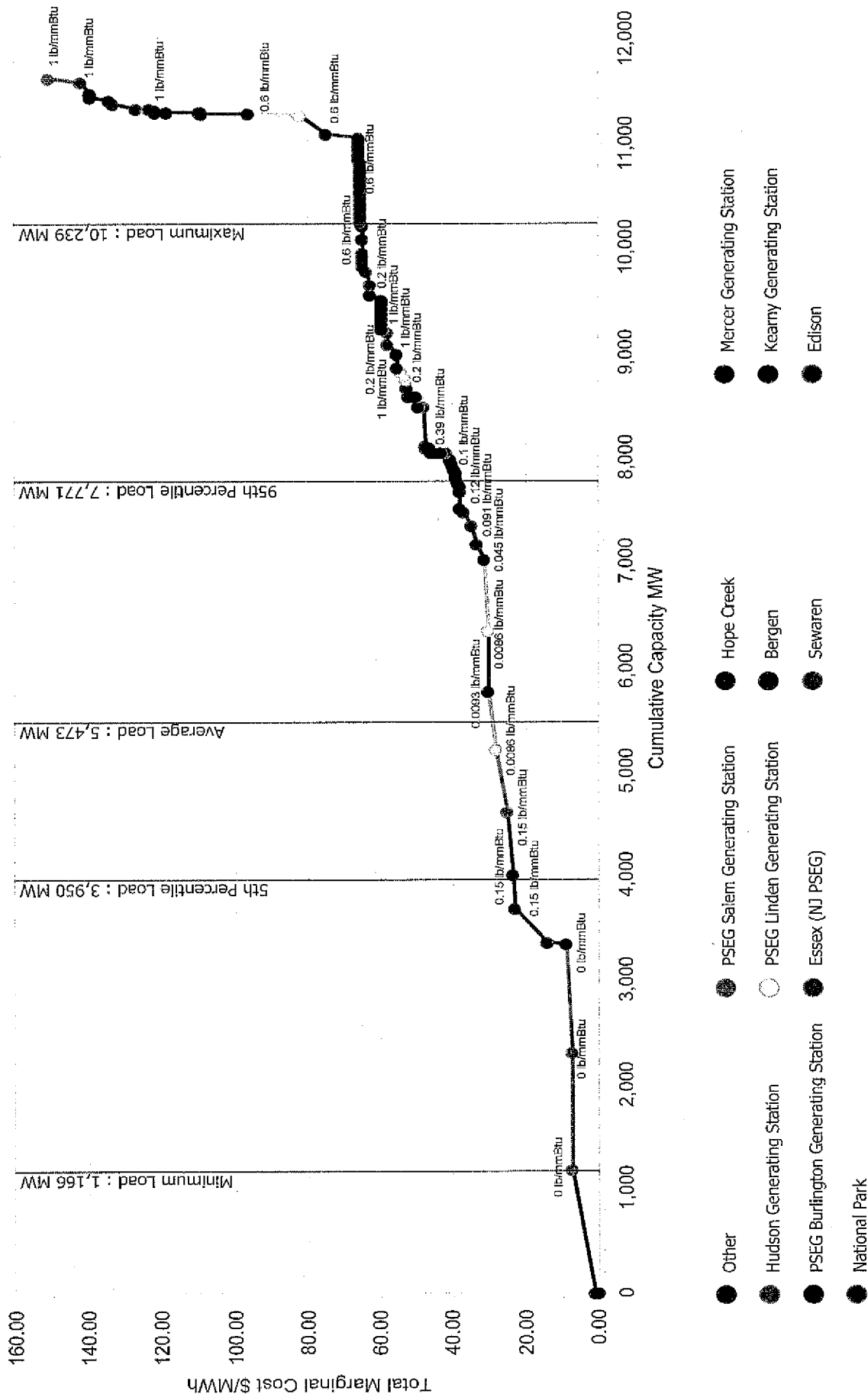
3.154 = Tons Reduced from Full Load Shifting
 " = Tons Reduced from Partial Load Shifting
 3.154 = Total Tons Reduced from Load Shifting

APPENDIX B

Supply Curve for PSEG Zone – July 2009

Supply curve for PSEG Zone – July 2009 - (Ventyx Database)

Zone Name: Public Service Electric & Gas Company



Notes: lb/mmBtu values represent the associated facility/unit NO_x emission limits when operating on the primary fuel as reflected in the Title V Operating Permits. This chart represents an estimation of total marginal costs vs cumulative capacity for PSEG's generating fleet in NJ and should be considered representative.

Attachment 2
Burlington Units No. 9 and 11
Essex Units No. 10, 11, and 12
Water Injection Use on HED Days

Burlington Generating Station
Water Injection - 2013

ORIS	UNIT ID	Eng.	HED Days		ONLINE	MW	MW tag	Fuel	Base/Peak	AVG. GPM	
			DATE	HOUR						A	B
2399	12001	91	15-Jul-13	14	1	1 MW		PNG	B	4.2	4.2
2399	12001	91	15-Jul-13	15	1	35 MW		PNG	B	3.9	4.0
2399	12001	91	15-Jul-13	16	1	35 MW		PNG	B	3.9	4.0
2399	12001	91	15-Jul-13	17	1	35 MW		PNG	B	3.9	4.0
2399	12001	91	15-Jul-13	18	1	15 MW		PNG	B	3.9	4.0
2399	12001	91	18-Jul-13	13	1	28 MW		PNG	B	3.8	4.8
2399	12001	91	18-Jul-13	14	1	31 MW		PNG	B	11.6	11.9
2399	12001	91	19-Jul-13	12	1	33 MW		PNG	B	12.0	12.2
2399	12001	91	19-Jul-13	13	1	16 MW		PNG	B	11.9	12.3
2399	12001	91	19-Jul-13	14	1	19 MW		PNG	B	12.0	12.2
2399	12001	91	19-Jul-13	15	1	10 MW		PNG	B	12.0	12.2
2399	14001	92	15-Jul-13	14	1	1 MW		PNG	B	0.0	0.0
2399	14001	92	15-Jul-13	15	1	15 MW		PNG	B	4.2	0.0
2399	14001	92	15-Jul-13	16	1	1 MW		PNG	B	4.2	0.0
2399	14001	92	18-Jul-13	13	1	12 MW		PNG	B	0.0	4.7
2399	14001	92	18-Jul-13	14	1	17 MW		PNG	B	0.0	11.9
2399	14001	92	19-Jul-13	12	1	23 MW		PNG	B	12.3	12.2
2399	14001	92	19-Jul-13	13	1	38 MW		PNG	B	12.3	12.2
2399	14001	92	19-Jul-13	14	1	38 MW		PNG	B	12.3	12.2
2399	14001	92	19-Jul-13	15	1	38 MW		PNG	B	12.2	12.2
2399	14001	92	19-Jul-13	16	1	34 MW		PNG	B	12.2	12.2
2399	16001	93	15-Jul-13	14	1	3 MW		PNG	B	0.0	0.0
2399	16001	93	15-Jul-13	15	1	38 MW		PNG	B	8.4	11.9
2399	16001	93	15-Jul-13	16	1	8 MW		PNG	B	8.5	11.9
2399	16001	93	18-Jul-13	13	1	27 MW		PNG	B	3.0	3.0
2399	16001	93	18-Jul-13	14	1	8 MW		PNG	B	11.8	11.8
2399	16001	93	19-Jul-13	12	1	18 MW		PNG	B	12.2	12.3
2399	16001	93	19-Jul-13	13	1	38 MW		PNG	B	12.2	12.4
2399	16001	93	19-Jul-13	14	1	38 MW		PNG	B	12.2	12.4
2399	16001	93	19-Jul-13	15	1	27 MW		PNG	B	12.2	12.4
2399	16001	93	19-Jul-13	16	1	32 MW		PNG	B	12.2	12.2
2399	18001	94	18-Jul-13	13	1	33 MW		PNG	B	11.4	11.5
2399	18001	94	18-Jul-13	14	1	26 MW		PNG	B	12.0	11.8
2399	28001	111	15-Jul-13	13	1	2 MW		PNG	B	0.0	0.0
2399	28001	111	15-Jul-13	14	1	15 MW		PNG	B	0.0	11.7
2399	28001	111	15-Jul-13	15	1	15 MW		PNG	B	0.0	11.8
2399	28001	111	15-Jul-13	16	1	15 MW		PNG	B	0.0	12.1
2399	28001	111	15-Jul-13	17	1	15 MW		PNG	B	0.0	12.1
2399	28001	111	15-Jul-13	18	1	6 MW		PNG	B	0.0	11.8
2399	28001	111	18-Jul-13	13	1	10 MW		PNG	B	5.9	3.7
2399	28001	111	18-Jul-13	14	1	13 MW		PNG	B	0.0	11.8
2399	30001	112	15-Jul-13	13	1	6 MW		PNG	B	0.0	0.0
2399	30001	112	15-Jul-13	14	1	12 MW		PNG	B	0.0	11.7

Burlington Generating Station
Water Injection - 2013

ORIS	UNIT ID	Eng.	HED Days		ONLINE	MW	MW tag	Fuel	Base/Peak	AVG. GPM	
			DATE	HOUR						A	B
2399	30001	112	16-Jul-13	15	1	0 MW		PNG	B	0.0	0.0
2399	30001	112	15-Jul-13	16	1	13 MW		PNG	B	0.0	11.7
2399	30001	112	15-Jul-13	17	1	35 MW		PNG	B	11.8	12.1
2399	30001	112	15-Jul-13	18	1	34 MW		PNG	B	11.8	12.1
2399	30001	112	15-Jul-13	19	1	35 MW		PNG	B	11.8	12.1
2399	30001	112	15-Jul-13	20	1	35 MW		PNG	B	11.8	12.1
2399	30001	112	15-Jul-13	21	1	18 MW		PNG	B	0.0	11.9
2399	30001	112	18-Jul-13	13	1	25 MW		PNG	B	3.8	2.2
2399	30001	112	18-Jul-13	14	1	30 MW		PNG	B	11.6	12.1
2399	30001	112	19-Jul-13	12	1	33 MW		PNG	B	11.8	12.1
2399	30001	112	19-Jul-13	13	1	34 MW		PNG	B	11.8	12.1
2399	30001	112	19-Jul-13	14	1	34 MW		PNG	B	11.8	12.1
2399	30001	112	19-Jul-13	15	1	34 MW		PNG	B	11.8	12.1
2399	30001	112	19-Jul-13	16	1	31 MW		PNG	B	11.8	12.1
2399	32001	113	15-Jul-13	14	1	1 MW		PNG	B	0.0	0.0
2399	32001	113	15-Jul-13	15	1	25 MW		PNG	B	11.9	6.3
2399	32001	113	15-Jul-13	16	1	5 MW		PNG	B	11.9	6.4
2399	32001	113	18-Jul-13	13	1	24 MW		PNG	B	0.0	0.0
2399	32001	113	18-Jul-13	14	1	30 MW		PNG	B	11.7	4.1
2399	32001	113	19-Jul-13	12	1	32 MW		PNG	B	11.9	6.4
2399	32001	113	19-Jul-13	13	1	18 MW		PNG	B	11.9	6.3
2399	32001	113	19-Jul-13	14	1	14 MW		PNG	B	11.9	0.0
2399	32001	113	19-Jul-13	15	1	15 MW		PNG	B	11.9	0.0
2399	32001	113	19-Jul-13	16	1	13 MW		PNG	B	11.9	0.0
2399	34001	114	15-Jul-13	13	1	3 MW		PNG	B	0.0	0.0
2399	34001	114	15-Jul-13	14	1	35 MW		PNG	B	11.8	12.2
2399	34001	114	15-Jul-13	15	1	34 MW		PNG	B	12.2	12.2
2399	34001	114	15-Jul-13	16	1	36 MW		PNG	B	12.2	12.2
2399	34001	114	15-Jul-13	17	1	34 MW		PNG	B	12.2	12.2
2399	34001	114	15-Jul-13	18	1	16 MW		PNG	B	0.0	12.1
2399	34001	114	18-Jul-13	13	1	18 MW		PNG	B	0.1	4.2
2399	34001	114	18-Jul-13	14	1	14 MW		PNG	B	0.0	11.5
2399	34001	114	19-Jul-13	12	1	29 MW		PNG	B	11.8	12.2
2399	34001	114	19-Jul-13	13	1	32 MW		PNG	B	12.2	12.2
2399	34001	114	19-Jul-13	14	1	32 MW		PNG	B	12.2	12.2
2399	34001	114	19-Jul-13	15	1	32 MW		PNG	B	12.2	12.2
2399	34001	114	19-Jul-13	16	1	30 MW		PNG	B	12.2	12.2

Essex Generating Station**Water Injection - 2013**

ORIS	UNIT ID	Eng.	HED Days		ONLINE	MW	MW tag	Fuel	AVG. GPM	
			DATE	HOUR					A	B
2401	2001	101	5-Jul-13	14	1	19 MW		PNG	11.9	11.1
2401	2001	101	5-Jul-13	16	1	20 MW		PNG	11.0	11.0
2401	2001	101	5-Jul-13	17	1	33 MW		PNG	11.1	11.1
2401	2001	101	5-Jul-13	18	1	33 MW		PNG	11.1	11.1
2401	2001	101	5-Jul-13	19	1	6 MW		PNG	10.9	10.8
2401	2001	101	15-Jul-13	13	1	32 MW		PNG	11.0	11.3
2401	2001	101	15-Jul-13	14	1	33 MW		PNG	11.1	11.1
2401	2001	101	15-Jul-13	15	1	33 MW		PNG	11.1	11.1
2401	2001	101	15-Jul-13	16	1	33 MW		PNG	11.1	11.1
2401	2001	101	15-Jul-13	17	1	33 MW		PNG	11.1	11.1
2401	2001	101	15-Jul-13	18	1	33 MW		PNG	11.1	11.1
2401	2001	101	15-Jul-13	19	1	33 MW		PNG	11.1	11.1
2401	2001	101	15-Jul-13	20	1	34 MW		PNG	11.1	11.1
2401	2001	101	15-Jul-13	21	1	16 MW		PNG	11.1	11.1
2401	2001	101	16-Jul-13	12	1	29 MW		PNG	11.1	11.1
2401	2001	101	16-Jul-13	13	1	33 MW		PNG	11.1	11.1
2401	2001	101	16-Jul-13	14	1	33 MW		PNG	11.1	11.1
2401	2001	101	16-Jul-13	15	1	33 MW		PNG	11.1	11.1
2401	2001	101	16-Jul-13	16	1	33 MW		PNG	11.1	11.1
2401	2001	101	16-Jul-13	17	1	33 MW		PNG	11.1	11.1
2401	2001	101	16-Jul-13	18	1	33 MW		PNG	11.1	11.1
2401	2001	101	16-Jul-13	19	1	8 MW		PNG	11.0	11.0
2401	2001	101	17-Jul-13	0	1	22 MW		PNG	11.0	11.0
2401	2001	101	17-Jul-13	1	1	35 MW		PNG	11.1	11.1
2401	2001	101	17-Jul-13	2	1	20 MW		PNG	11.0	11.0
2401	2001	101	17-Jul-13	12	1	29 MW		PNG	11.0	11.0
2401	2001	101	17-Jul-13	13	1	33 MW		PNG	11.1	11.1
2401	2001	101	17-Jul-13	14	1	33 MW		PNG	11.1	11.1
2401	2001	101	17-Jul-13	15	1	33 MW		PNG	11.1	11.1
2401	2001	101	17-Jul-13	16	1	32 MW		PNG	11.1	11.1
2401	2001	101	17-Jul-13	17	1	33 MW		PNG	11.1	11.1
2401	2001	101	17-Jul-13	18	1	34 MW		PNG	11.1	11.1
2401	2001	101	17-Jul-13	19	1	34 MW		PNG	11.1	11.1
2401	2001	101	17-Jul-13	20	1	34 MW		PNG	11.1	11.1
2401	2001	101	17-Jul-13	21	1	34 MW		PNG	11.1	11.1
2401	2001	101	17-Jul-13	22	1	23 MW		PNG	11.1	11.0
2401	2001	101	18-Jul-13	11	1	1 MW		PNG	0.0	0.0
2401	2001	101	18-Jul-13	12	1	33 MW		PNG	11.0	11.0
2401	2001	101	18-Jul-13	13	1	32 MW		PNG	11.1	11.1
2401	2001	101	18-Jul-13	14	1	32 MW		PNG	11.1	11.1
2401	2001	101	18-Jul-13	15	1	32 MW		PNG	11.1	11.1
2401	2001	101	18-Jul-13	16	1	32 MW		PNG	11.1	11.1
2401	2001	101	18-Jul-13	17	1	32 MW		PNG	11.1	11.1

Essex Generating Station**Water Injection - 2013**

ORIS	UNIT ID	Eng.	HED Days		ONLINE	MW	MW tag	Fuel	AVG. GPM	
			DATE	HOUR					A	B
2401	2001	101	18-Jul-13	18	1	32 MW		PNG	11.1	11.1
2401	2001	101	18-Jul-13	19	1	29 MW		PNG	11.1	11.1
2401	2001	101	19-Jul-13	10	1	1 MW		PNG	0.0	0.0
2401	2001	101	19-Jul-13	11	1	32 MW		PNG	11.0	11.0
2401	2001	101	19-Jul-13	12	1	32 MW		PNG	11.1	11.1
2401	2001	101	19-Jul-13	13	1	32 MW		PNG	11.1	11.1
2401	2001	101	19-Jul-13	14	1	32 MW		PNG	11.1	11.1
2401	2001	101	19-Jul-13	15	1	32 MW		PNG	11.1	11.1
2401	2001	101	19-Jul-13	16	1	32 MW		PNG	11.1	11.1
2401	2001	101	19-Jul-13	17	1	32 MW		PNG	11.1	11.1
2401	2001	101	19-Jul-13	18	1	32 MW		PNG	11.1	11.1
2401	2001	101	19-Jul-13	19	1	32 MW		PNG	11.1	11.1
2401	2001	101	19-Jul-13	20	1	12 MW		PNG	11.0	10.9
2401	4001	102	5-Jul-13	14	1	17 MW		PNG	0.0	0.0
2401	4001	102	5-Jul-13	16	1	15 MW		PNG	49.1	0.0
2401	4001	102	5-Jul-13	17	1	18 MW		PNG	0.0	0.0
2401	4001	102	5-Jul-13	18	1	13 MW		PNG	0.0	0.0
2401	4001	102	5-Jul-13	19	1	3 MW		PNG	0.0	0.0
2401	4001	102	15-Jul-13	13	1	19 MW		PNG	11.2	10.5
2401	4001	102	15-Jul-13	14	1	29 MW		PNG	11.2	11.1
2401	4001	102	15-Jul-13	15	1	29 MW		PNG	11.2	11.1
2401	4001	102	15-Jul-13	16	1	8 MW		PNG	11.2	11.1
2401	4001	102	16-Jul-13	12	1	27 MW		PNG	11.0	11.1
2401	4001	102	16-Jul-13	13	1	28 MW		PNG	11.1	11.1
2401	4001	102	16-Jul-13	14	1	29 MW		PNG	11.0	11.1
2401	4001	102	16-Jul-13	15	1	28 MW		PNG	11.0	11.1
2401	4001	102	16-Jul-13	16	1	29 MW		PNG	11.0	11.1
2401	4001	102	16-Jul-13	17	1	28 MW		PNG	11.0	11.1
2401	4001	102	16-Jul-13	18	1	29 MW		PNG	11.0	11.1
2401	4001	102	16-Jul-13	19	1	9 MW		PNG	11.0	11.1
2401	4001	102	17-Jul-13	0	1	20 MW		PNG	11.1	10.7
2401	4001	102	17-Jul-13	1	1	32 MW		PNG	11.1	11.1
2401	4001	102	17-Jul-13	2	1	19 MW		PNG	11.1	11.0
2401	4001	102	17-Jul-13	12	1	27 MW		PNG	11.1	10.9
2401	4001	102	17-Jul-13	13	1	29 MW		PNG	11.2	11.1
2401	4001	102	17-Jul-13	14	1	30 MW		PNG	11.2	11.1
2401	4001	102	17-Jul-13	15	1	29 MW		PNG	11.2	11.1
2401	4001	102	17-Jul-13	16	1	30 MW		PNG	11.2	11.1
2401	4001	102	17-Jul-13	17	1	30 MW		PNG	11.2	11.1
2401	4001	102	17-Jul-13	18	1	31 MW		PNG	11.2	11.1
2401	4001	102	17-Jul-13	19	1	31 MW		PNG	11.2	11.1
2401	4001	102	17-Jul-13	20	1	31 MW		PNG	11.2	11.1
2401	4001	102	17-Jul-13	21	1	31 MW		PNG	11.2	11.1

Essex Generating Station**Water Injection - 2013**

ORIS	UNIT ID	Eng.	HED Days		ONLINE	MW	MW tag	Fuel	AVG. GPM	
			DATE	HOUR					A	B
2401	4001	102	17-Jul-13	22	1	23 MW	PNG		11.2	11.0
2401	4001	102	18-Jul-13	11	1	1 MW	PNG		0.0	0.0
2401	4001	102	18-Jul-13	12	1	30 MW	PNG		11.4	11.0
2401	4001	102	18-Jul-13	13	1	29 MW	PNG		11.4	11.4
2401	4001	102	18-Jul-13	14	1	29 MW	PNG		11.4	11.1
2401	4001	102	18-Jul-13	15	1	28 MW	PNG		11.4	11.1
2401	4001	102	18-Jul-13	16	1	29 MW	PNG		11.4	11.1
2401	4001	102	18-Jul-13	17	1	28 MW	PNG		11.4	11.1
2401	4001	102	18-Jul-13	18	1	29 MW	PNG		11.4	11.1
2401	4001	102	18-Jul-13	19	1	27 MW	PNG		11.3	11.1
2401	4001	102	19-Jul-13	10	1	1 MW	PNG		0.0	0.0
2401	4001	102	19-Jul-13	11	1	29 MW	PNG		11.4	11.0
2401	4001	102	19-Jul-13	12	1	29 MW	PNG		11.4	11.1
2401	4001	102	19-Jul-13	13	1	28 MW	PNG		11.4	11.1
2401	4001	102	19-Jul-13	14	1	28 MW	PNG		11.4	11.1
2401	4001	102	19-Jul-13	15	1	28 MW	PNG		11.4	11.1
2401	4001	102	19-Jul-13	16	1	28 MW	PNG		11.4	11.1
2401	4001	102	19-Jul-13	17	1	28 MW	PNG		11.4	11.1
2401	4001	102	19-Jul-13	18	1	27 MW	PNG		11.4	11.1
2401	4001	102	19-Jul-13	19	1	29 MW	PNG		11.4	11.1
2401	4001	102	19-Jul-13	20	1	11 MW	PNG		11.4	11.0
2401	10001	103	5-Jul-13	14	1	12 MW	PNG		12.4	0.0
2401	10001	103	5-Jul-13	16	1	7 MW	PNG		11.0	0.0
2401	10001	103	5-Jul-13	17	1	15 MW	PNG		11.2	0.0
2401	10001	103	5-Jul-13	18	1	4 MW	PNG		11.1	0.0
2401	10001	103	15-Jul-13	13	1	33 MW	PNG		11.1	11.1
2401	10001	103	15-Jul-13	14	1	33 MW	PNG		11.1	11.1
2401	10001	103	15-Jul-13	15	1	33 MW	PNG		11.1	11.1
2401	10001	103	15-Jul-13	16	1	10 MW	PNG		11.1	11.1
2401	10001	103	15-Jul-13	17	1	7 MW	PNG		11.1	11.0
2401	10001	103	15-Jul-13	18	1	5 MW	PNG		11.3	11.3
2401	10001	103	15-Jul-13	19	1	16 MW	PNG		11.1	0.0
2401	10001	103	15-Jul-13	20	1	15 MW	PNG		11.1	0.0
2401	10001	103	15-Jul-13	21	1	4 MW	PNG		11.1	0.0
2401	10001	103	16-Jul-13	12	1	27 MW	PNG		11.1	10.1
2401	10001	103	16-Jul-13	13	1	22 MW	PNG		11.1	11.1
2401	10001	103	16-Jul-13	14	1	31 MW	PNG		11.1	11.1
2401	10001	103	16-Jul-13	15	1	30 MW	PNG		11.1	11.1
2401	10001	103	16-Jul-13	16	1	30 MW	PNG		11.1	11.1
2401	10001	103	16-Jul-13	17	1	31 MW	PNG		11.1	11.1
2401	10001	103	16-Jul-13	18	1	8 MW	PNG		11.1	11.1
2401	10001	103	17-Jul-13	0	1	13 MW	PNG		11.1	11.1
2401	10001	103	17-Jul-13	1	1	16 MW	PNG		11.1	0.0

Essex Generating Station**Water Injection - 2013**

ORIS	UNIT ID	Eng.	HED Days		ONLINE	MW	MW tag	Fuel	AVG. GPM	
			DATE	HOUR					A	B
2401	10001	103	17-Jul-13	2	1	13 MW	PNG		11.0	11.0
2401	10001	103	17-Jul-13	12	1	6 MW	PNG		11.1	10.9
2401	10001	103	17-Jul-13	13	1	8 MW	PNG		11.1	11.0
2401	10001	103	17-Jul-13	14	1	13 MW	PNG		11.0	11.1
2401	10001	103	17-Jul-13	15	1	12 MW	PNG		0.0	11.1
2401	10001	103	17-Jul-13	16	1	10 MW	PNG		0.0	11.0
2401	10001	103	17-Jul-13	17	1	15 MW	PNG		11.1	11.1
2401	10001	103	17-Jul-13	18	1	1 MW	PNG		0.0	0.0
2401	10001	103	18-Jul-13	12	1	8 MW	PNG		11.3	11.1
2401	10001	103	18-Jul-13	13	1	1 MW	PNG		0.0	0.0
2401	10001	103	18-Jul-13	14	1	2 MW	PNG		10.9	11.1
2401	10001	103	18-Jul-13	15	1	4 MW	PNG		0.0	11.2
2401	10001	103	18-Jul-13	16	1	10 MW	PNG		0.0	11.1
2401	10001	103	19-Jul-13	10	1	2 MW	PNG		0.0	0.0
2401	10001	103	19-Jul-13	11	1	12 MW	PNG		0.0	11.1
2401	10001	103	19-Jul-13	12	1	12 MW	PNG		0.0	11.1
2401	10001	103	19-Jul-13	13	1	12 MW	PNG		0.0	11.1
2401	10001	103	19-Jul-13	14	1	12 MW	PNG		0.0	11.1
2401	10001	103	19-Jul-13	15	1	12 MW	PNG		0.0	11.1
2401	10001	103	19-Jul-13	16	1	12 MW	PNG		0.0	11.1
2401	10001	103	19-Jul-13	17	1	11 MW	PNG		0.0	11.1
2401	10001	103	19-Jul-13	18	1	9 MW	PNG		0.0	11.1
2401	10001	103	19-Jul-13	19	1	10 MW	PNG		0.0	11.1
2401	10001	103	19-Jul-13	20	1	1 MW	PNG		0.0	11.1
2401	12001	104	5-Jul-13	14	1	4 MW	PNG		0.0	0.0
2401	12001	104	5-Jul-13	16	1	16 MW	PNG		0.0	11.0
2401	12001	104	5-Jul-13	17	1	32 MW	PNG		0.0	11.1
2401	12001	104	5-Jul-13	18	1	10 MW	PNG		0.0	8.5
2401	12001	104	15-Jul-13	13	1	32 MW	PNG		11.1	11.1
2401	12001	104	15-Jul-13	14	1	17 MW	PNG		11.1	11.1
2401	12001	104	15-Jul-13	15	1	32 MW	PNG		11.1	11.1
2401	12001	104	15-Jul-13	16	1	31 MW	PNG		11.1	11.1
2401	12001	104	15-Jul-13	17	1	32 MW	PNG		11.1	11.1
2401	12001	104	15-Jul-13	18	1	32 MW	PNG		11.1	11.1
2401	12001	104	15-Jul-13	19	1	32 MW	PNG		11.1	11.1
2401	12001	104	15-Jul-13	20	1	32 MW	PNG		11.1	11.1
2401	12001	104	15-Jul-13	21	1	19 MW	PNG		11.1	11.1
2401	12001	104	16-Jul-13	12	1	22 MW	PNG		11.1	11.1
2401	12001	104	16-Jul-13	13	1	32 MW	PNG		11.1	11.1
2401	12001	104	16-Jul-13	14	1	32 MW	PNG		11.1	11.1
2401	12001	104	16-Jul-13	15	1	32 MW	PNG		11.1	11.1
2401	12001	104	16-Jul-13	16	1	32 MW	PNG		11.1	11.1
2401	12001	104	16-Jul-13	17	1	32 MW	PNG		11.1	11.1

Essex Generating Station**Water Injection - 2013**

ORIS	UNIT ID	Eng.	HED Days		ONLINE	MW	MW tag	Fuel	AVG. GPM	
			DATE	HOUR					A	B
2401	12001	104	16-Jul-13	18	1	32 MW	PNG		11.1	11.1
2401	12001	104	16-Jul-13	19	1	8 MW	PNG		11.1	11.0
2401	12001	104	17-Jul-13	0	1	21 MW	PNG		11.1	11.0
2401	12001	104	17-Jul-13	1	1	34 MW	PNG		11.1	11.1
2401	12001	104	17-Jul-13	2	1	19 MW	PNG		11.0	11.0
2401	12001	104	17-Jul-13	12	1	11 MW	PNG		11.1	11.0
2401	12001	104	17-Jul-13	13	1	12 MW	PNG		11.1	11.0
2401	12001	104	17-Jul-13	14	1	32 MW	PNG		11.1	11.1
2401	12001	104	17-Jul-13	15	1	31 MW	PNG		11.1	11.1
2401	12001	104	17-Jul-13	16	1	32 MW	PNG		11.1	11.1
2401	12001	104	17-Jul-13	17	1	33 MW	PNG		11.1	11.1
2401	12001	104	17-Jul-13	18	1	32 MW	PNG		11.1	11.1
2401	12001	104	17-Jul-13	19	1	34 MW	PNG		11.1	11.1
2401	12001	104	17-Jul-13	20	1	33 MW	PNG		11.1	11.1
2401	12001	104	17-Jul-13	21	1	33 MW	PNG		11.1	11.1
2401	12001	104	17-Jul-13	22	1	23 MW	PNG		11.1	11.1
2401	12001	104	18-Jul-13	11	1	1 MW	PNG		0.0	0.0
2401	12001	104	18-Jul-13	12	1	32 MW	PNG		11.1	11.1
2401	12001	104	18-Jul-13	13	1	31 MW	PNG		11.1	11.1
2401	12001	104	18-Jul-13	14	1	31 MW	PNG		11.1	11.1
2401	12001	104	18-Jul-13	15	1	31 MW	PNG		11.1	11.1
2401	12001	104	18-Jul-13	16	1	31 MW	PNG		11.1	11.1
2401	12001	104	18-Jul-13	17	1	31 MW	PNG		11.1	11.1
2401	12001	104	18-Jul-13	18	1	31 MW	PNG		11.1	11.1
2401	12001	104	18-Jul-13	19	1	28 MW	PNG		11.1	11.1
2401	12001	104	19-Jul-13	10	1	2 MW	PNG		0.0	0.0
2401	12001	104	19-Jul-13	11	1	27 MW	PNG		11.1	11.1
2401	12001	104	19-Jul-13	12	1	23 MW	PNG		11.1	11.1
2401	12001	104	19-Jul-13	13	1	31 MW	PNG		11.1	11.1
2401	12001	104	19-Jul-13	14	1	30 MW	PNG		11.1	11.1
2401	12001	104	19-Jul-13	15	1	12 MW	PNG		11.1	11.1

Attachment 3
Daily HEDD Emission Reduction
Calculations

Emission Reduction (ER) Calculation pursuant to N.J.A.C. 7:27-19.29(c)

High Electric Demand Day: 6/25/2013								
Station	Unit ID	MW	Heat Input (mmbtu)	NOX Rate (lb/mmbtu)	NOX Rate (lb/mwh)	NOX Emissions (tons)	Control Factor (CF)	Unit Reduction Factor (Nox tons)
Bergen	3	-	-	-	-	-	0.4	-
Burlington	8	-	-	-	-	-	0.4	-
Burlington	91	-	-	-	-	-	0.4	-
Burlington	92	-	-	-	-	-	0.4	-
Burlington	93	-	-	-	-	-	0.4	-
Burlington	94	-	-	-	-	-	0.4	-
Burlington	111	-	-	-	-	-	0.4	-
Burlington	112	-	-	-	-	-	0.4	-
Burlington	113	-	-	-	-	-	0.4	-
Burlington	114	-	-	-	-	-	0.4	-
Burlington	121	372	3,420.2	0.090	0.831	0.155	0.0	-
Burlington	122	217	1,987.0	0.087	0.796	0.086	0.0	-
Burlington	123	361	3,538.7	0.091	0.897	0.162	0.0	-
Burlington	124	-	-	-	-	-	0.0	-
Edison	11	-	-	-	-	-	0.0	-
Edison	12	-	-	-	-	-	0.0	-
Edison	13	-	-	-	-	-	0.0	-
Edison	14	-	-	-	-	-	0.0	-
Edison	21	-	-	-	-	-	0.0	-
Edison	22	-	-	-	-	-	0.0	-
Edison	23	-	-	-	-	-	0.0	-
Edison	24	-	-	-	-	-	0.0	-
Edison	31	-	-	-	-	-	0.0	-
Edison	32	-	-	-	-	-	0.0	-
Edison	33	-	-	-	-	-	0.0	-
Edison	34	-	-	-	-	-	0.0	-
Essex	9	-	-	-	-	-	0.0	-
Essex	101	-	-	-	-	-	0.4	-
Essex	102	-	-	-	-	-	0.4	-
Essex	103	-	-	-	-	-	0.4	-
Essex	104	-	-	-	-	-	0.4	-
Essex	111	-	-	-	-	-	0.4	-
Essex	112	-	-	-	-	-	0.4	-
Essex	113	-	-	-	-	-	0.4	-
Essex	114	-	-	-	-	-	0.4	-
Essex	121	-	-	-	-	-	0.4	-
Essex	122	-	-	-	-	-	0.4	-
Essex	123	-	-	-	-	-	0.4	-
Essex	124	-	-	-	-	-	0.4	-
Kearny	9	-	-	-	-	-	0.4	-
Kearny	121	496	4,515.0	0.092	0.836	0.207	0.0	-
Kearny	122	490	5,135.8	0.086	0.906	0.222	0.0	-
Kearny	123	500	4,555.4	0.071	0.646	0.162	0.0	-
Kearny	124	503	4,775.4	0.079	0.753	0.189	0.0	-
Linden	5	487	5,148.6	0.035	0.375	0.091	0.0	-
Linden	6	499	5,854.8	0.030	0.348	0.087	0.0	-
Linden	7	268	3,166.3	0.043	0.504	0.068	0.0	-
Linden	8	-	-	-	-	-	0.0	-
Mercer	3	-	-	-	-	-	0.4	-
National Park	1	-	-	-	-	-	0.4	-
Salem	3	-	-	-	-	-	0.4	-
Sewaren	1	-	-	-	-	-	0.3	-
Sewaren	2	-	-	-	-	-	0.3	-
Sewaren	3	-	-	-	-	-	0.3	-
Sewaren	4	-	-	-	-	-	0.3	-
Sewaren	6	-	-	-	-	-	0.4	-
TOTAL		4,193	42,097			1.429		-

Calculation Results:

Emission Factor (EF) = 59.281 tons
 Baseline Emissions (BE) = 1.429 tons
 Reduction Factor (RF) = 18.343 tons

$$ER = \left(\frac{BE}{EF} \right) * RF$$

Emission Reduction (ER) = 0.442 tons

Emission Reduction (ER) Calculation pursuant to N.J.A.C. 7:27-19.29(c)

High Electric Demand Day: 6/26/2013								
Station	Unit ID	MW	Heat Input (mmbtu)	NOX Rate (lb/mmbtu)	NOX Rate (lb/mwh)	NOX Emissions (tons)	Control Factor (CF)	Unit Reduction Factor (Nox tons)
Bergen	3	-	-	-	-	-	0.4	-
Burlington	8	-	-	-	-	-	0.4	-
Burlington	91	-	-	-	-	-	0.4	-
Burlington	92	-	-	-	-	-	0.4	-
Burlington	93	-	-	-	-	-	0.4	-
Burlington	94	-	-	-	-	-	0.4	-
Burlington	111	-	-	-	-	-	0.4	-
Burlington	112	-	-	-	-	-	0.4	-
Burlington	113	-	-	-	-	-	0.4	-
Burlington	114	-	-	-	-	-	0.4	-
Burlington	121	-	-	-	-	-	0.0	-
Burlington	122	3	32.8	0.284	3.100	0.005	0.0	-
Burlington	123	-	-	-	-	-	0.0	-
Burlington	124	-	-	-	-	-	0.0	-
Edison	11	-	-	-	-	-	0.0	-
Edison	12	-	-	-	-	-	0.0	-
Edison	13	-	-	-	-	-	0.0	-
Edison	14	-	-	-	-	-	0.0	-
Edison	21	-	-	-	-	-	0.0	-
Edison	22	-	-	-	-	-	0.0	-
Edison	23	-	-	-	-	-	0.0	-
Edison	24	-	-	-	-	-	0.0	-
Edison	31	-	-	-	-	-	0.0	-
Edison	32	-	-	-	-	-	0.0	-
Edison	33	-	-	-	-	-	0.0	-
Edison	34	-	-	-	-	-	0.0	-
Essex	9	-	-	-	-	-	0.0	-
Essex	101	-	-	-	-	-	0.4	-
Essex	102	-	-	-	-	-	0.4	-
Essex	103	-	-	-	-	-	0.4	-
Essex	104	-	-	-	-	-	0.4	-
Essex	111	-	-	-	-	-	0.4	-
Essex	112	-	-	-	-	-	0.4	-
Essex	113	-	-	-	-	-	0.4	-
Essex	114	-	-	-	-	-	0.4	-
Essex	121	-	-	-	-	-	0.4	-
Essex	122	-	-	-	-	-	0.4	-
Essex	123	-	-	-	-	-	0.4	-
Essex	124	-	-	-	-	-	0.4	-
Kearny	9	-	-	-	-	-	0.4	-
Kearny	121	197	1,612.3	0.083	0.681	0.067	0.0	-
Kearny	122	202	1,883.6	0.088	0.823	0.083	0.0	-
Kearny	123	190	1,552.7	0.075	0.609	0.058	0.0	-
Kearny	124	204	1,740.7	0.082	0.702	0.072	0.0	-
Linden	5	-	-	-	-	-	0.0	-
Linden	6	-	-	-	-	-	0.0	-
Linden	7	-	-	-	-	-	0.0	-
Linden	8	-	-	-	-	-	0.0	-
Mercer	3	-	-	-	-	-	0.4	-
National Park	1	-	-	-	-	-	0.4	-
Salem	3	-	-	-	-	-	0.4	-
Sewaren	1	-	-	-	-	-	0.3	-
Sewaren	2	-	-	-	-	-	0.3	-
Sewaren	3	-	-	-	-	-	0.3	-
Sewaren	4	-	-	-	-	-	0.3	-
Sewaren	6	-	-	-	-	-	0.4	-
TOTAL		796	6,822			0.284		-

Calculation Results:

Emission Factor (EF) = 59.281 tons
 Baseline Emissions (BE) = 0.284 tons
 Reduction Factor (RF) = 18.343 tons

$$ER = \left(\frac{BE}{EF} \right) * RF$$

Emission Reduction (ER) = 0.088 tons

Emission Reduction (ER) Calculation pursuant to N.J.A.C. 7:27-19.29(c)

High Electric Demand Day: 7/5/2013								
Station	Unit ID	MW	Heat Input (mmbtu)	NOX Rate (lb/mmbtu)	NOX Rate (lb/mwh)	NOX Emissions (tons)	Control Factor (CF)	Unit Reduction Factor (Nox tons)
Bergen	3	-	-	-	-	-	0.4	-
Burlington	8	-	-	-	-	-	0.4	-
Burlington	91	-	-	-	-	-	0.4	-
Burlington	92	-	-	-	-	-	0.4	-
Burlington	93	-	-	-	-	-	0.4	-
Burlington	94	-	-	-	-	-	0.4	-
Burlington	111	-	-	-	-	-	0.4	-
Burlington	112	-	-	-	-	-	0.4	-
Burlington	113	-	-	-	-	-	0.4	-
Burlington	114	-	-	-	-	-	0.4	-
Burlington	121	184	1,514.1	0.088	0.723	0.066	0.0	-
Burlington	122	186	1,474.5	0.088	0.697	0.065	0.0	-
Burlington	123	166	1,379.0	0.092	0.764	0.063	0.0	-
Burlington	124	188	1,376.1	0.083	0.607	0.057	0.0	-
Edison	11	-	-	-	-	-	0.0	-
Edison	12	-	-	-	-	-	0.0	-
Edison	13	-	-	-	-	-	0.0	-
Edison	14	-	-	-	-	-	0.0	-
Edison	21	-	-	-	-	-	0.0	-
Edison	22	-	-	-	-	-	0.0	-
Edison	23	-	-	-	-	-	0.0	-
Edison	24	-	-	-	-	-	0.0	-
Edison	31	-	-	-	-	-	0.0	-
Edison	32	-	-	-	-	-	0.0	-
Edison	33	-	-	-	-	-	0.0	-
Edison	34	-	-	-	-	-	0.0	-
Essex	9	283	2,067.5	0.076	0.552	0.078	0.0	-
Essex	101	111	1,733.0	0.700	10.928	0.607	0.4	0.243
Essex	102	66	1,030.4	0.700	10.929	0.361	0.4	0.144
Essex	103	38	593.4	0.700	10.932	0.208	0.4	0.083
Essex	104	62	968.0	0.700	10.931	0.339	0.4	0.136
Essex	111	-	-	-	-	-	0.4	-
Essex	112	-	-	-	-	-	0.4	-
Essex	113	-	-	-	-	-	0.4	-
Essex	114	-	-	-	-	-	0.4	-
Essex	121	-	-	-	-	-	0.4	-
Essex	122	-	-	-	-	-	0.4	-
Essex	123	-	-	-	-	-	0.4	-
Essex	124	-	-	-	-	-	0.4	-
Kearny	9	-	-	-	-	-	0.4	-
Kearny	121	276	2,264.2	0.077	0.634	0.088	0.0	-
Kearny	122	279	2,488.3	0.082	0.731	0.102	0.0	-
Kearny	123	236	2,277.8	0.087	0.836	0.099	0.0	-
Kearny	124	288	2,470.4	0.075	0.645	0.093	0.0	-
Linden	5	346	3,772.3	0.038	0.416	0.072	0.0	-
Linden	6	351	4,312.9	0.037	0.456	0.080	0.0	-
Linden	7	414	5,074.5	0.038	0.465	0.096	0.0	-
Linden	8	407	4,816.9	0.037	0.434	0.088	0.0	-
Mercer	3	-	-	-	-	-	0.4	-
National Park	1	-	-	-	-	-	0.4	-
Salem	3	-	-	-	-	-	0.4	-
Sewaren	1	-	-	-	-	-	0.3	-
Sewaren	2	-	-	-	-	-	0.3	-
Sewaren	3	-	-	-	-	-	0.3	-
Sewaren	4	-	-	-	-	-	0.3	-
Sewaren	6	-	-	-	-	-	0.4	-
TOTAL		3,881	39,613			2.561		0.605

Calculation Results:

Emission Factor (EF) = 59.281 tons
 Baseline Emissions (BE) = 2.561 tons
 Reduction Factor (RF) = 18.343 tons

$$ER = \left(\frac{BE}{EF} \right) * RF$$

Emission Reduction (ER) = 0.793 tons

Emission Reduction (ER) Calculation pursuant to N.J.A.C. 7:27-19.29(c)

High Electric Demand Day: 7/15/2013									
Station	Unit ID	MW	Heat Input (mmbtu)	NOX Rate (lb/mmbtu)	NOX Rate (lb/mwh)	NOX Emissions (tons)	Control Factor (CF)	Unit Reduction Factor (Nox tons)	
Bergen	3	68	1,141.0	0.700	11.746	0.399	0.4	0.160	
Burlington	8	62	975.7	1.200	18.887	0.586	0.4	0.234	
Burlington	91	121	1,903.8	0.54	8.50	0.514	0.4	0.21	
Burlington	92	17	267.4	0.54	8.49	0.072	0.4	0.03	
Burlington	93	49	771.0	0.54	8.50	0.208	0.4	0.08	
Burlington	94	-	-	-	-	-	0.4	-	
Burlington	111	68	1,069.9	0.54	8.49	0.289	0.4	0.12	
Burlington	112	188	2,958.1	0.54	8.50	0.799	0.4	0.32	
Burlington	113	31	487.8	0.54	8.50	0.132	0.4	0.05	
Burlington	114	158	2,486.2	0.54	8.50	0.671	0.4	0.27	
Burlington	121	472	3,927.8	0.083	0.690	0.163	0.0	-	
Burlington	122	489	4,202.1	0.082	0.703	0.172	0.0	-	
Burlington	123	481	4,195.0	0.086	0.748	0.180	0.0	-	
Burlington	124	426	3,393.3	0.085	0.674	0.143	0.0	-	
Edison	11	204	3,097.7	0.420	6.378	0.651	0.0	-	
Edison	12	208	3,158.5	0.420	6.378	0.663	0.0	-	
Edison	13	166	2,520.9	0.420	6.379	0.529	0.0	-	
Edison	14	92	1,397.2	0.420	6.380	0.294	0.0	-	
Edison	21	209	3,173.6	0.420	6.378	0.667	0.0	-	
Edison	22	230	3,492.6	0.420	6.378	0.734	0.0	-	
Edison	23	237	3,599.0	0.420	6.377	0.756	0.0	-	
Edison	24	235	3,568.5	0.420	6.377	0.749	0.0	-	
Edison	31	207	3,143.2	0.420	6.378	0.660	0.0	-	
Edison	32	178	2,702.8	0.420	6.378	0.568	0.0	-	
Edison	33	270	4,099.9	0.420	6.378	0.861	0.0	-	
Edison	34	149	2,262.6	0.420	6.379	0.475	0.0	-	
Essex	9	451	2,838.5	0.077	0.482	0.109	0.0	-	
Essex	101	280	4,371.4	0.700	10.928	1.530	0.4	0.612	
Essex	102	85	1,327.1	0.700	10.929	0.465	0.4	0.186	
Essex	103	156	2,435.6	0.700	10.929	0.852	0.4	0.341	
Essex	104	259	4,043.6	0.700	10.928	1.415	0.4	0.566	
Essex	111	-	-	-	-	-	0.4	-	
Essex	112	-	-	-	-	-	0.4	-	
Essex	113	-	-	-	-	-	0.4	-	
Essex	114	-	-	-	-	-	0.4	-	
Essex	121	-	-	-	-	-	0.4	-	
Essex	122	-	-	-	-	-	0.4	-	
Essex	123	-	-	-	-	-	0.4	-	
Essex	124	-	-	-	-	-	0.4	-	
Kearny	9	-	-	-	-	-	0.4	-	
Kearny	121	554	5,042.6	0.089	0.810	0.224	0.0	-	
Kearny	122	564	5,653.1	0.081	0.808	0.228	0.0	-	
Kearny	123	480	5,182.3	0.080	0.860	0.206	0.0	-	
Kearny	124	551	5,040.9	0.082	0.751	0.207	0.0	-	
Linden	5	918	9,655.8	0.032	0.339	0.156	0.0	-	
Linden	6	934	11,060.4	0.032	0.375	0.175	0.0	-	
Linden	7	889	10,451.4	0.033	0.392	0.174	0.0	-	
Linden	8	817	8,838.6	0.033	0.357	0.146	0.0	-	
Mercer	3	-	-	-	-	-	0.4	-	
National Park	1	-	-	-	-	-	0.4	-	
Salem	3	141	2,085.5	1.200	17.750	1.251	0.4	0.501	
Sewaren	1	833	10,149.9	0.056	0.683	0.285	0.3	0.085	
Sewaren	2	-	-	-	-	-	0.3	-	
Sewaren	3	-	-	-	-	-	0.3	-	
Sewaren	4	-	-	-	-	-	0.3	-	
Sewaren	6	-	-	-	-	-	0.4	-	
TOTAL		12,927	152,172			19.358		3.759	

Calculation Results:

Emission Factor (EF) = 59.281 tons
 Baseline Emissions (BE) = 19.358 tons
 Reduction Factor (RF) = 18.343 tons

$$ER = \left(\frac{BE}{EF} \right) * RF$$

Emission Reduction (ER) = 5.990 tons

Emission Reduction (ER) Calculation pursuant to N.J.A.C. 7:27-19.29(c)

High Electric Demand Day: 7/16/2013								
Station	Unit ID	MW	Heat Input (mmbtu)	NOX Rate (lb/mmbtu)	NOX Rate (lb/mwh)	NOX Emissions (tons)	Control Factor (CF)	Unit Reduction Factor (Nox tons)
Bergen	3	-	-	-	-	-	0.4	-
Burlington	8	-	-	-	-	-	0.4	-
Burlington	91	-	-	-	-	-	0.4	-
Burlington	92	-	-	-	-	-	0.4	-
Burlington	93	-	-	-	-	-	0.4	-
Burlington	94	-	-	-	-	-	0.4	-
Burlington	111	-	-	-	-	-	0.4	-
Burlington	112	-	-	-	-	-	0.4	-
Burlington	113	-	-	-	-	-	0.4	-
Burlington	114	-	-	-	-	-	0.4	-
Burlington	121	-	12.8	0.192	-	0.001	0.0	-
Burlington	122	-	12.9	0.232	-	0.002	0.0	-
Burlington	123	-	12.6	0.269	-	0.002	0.0	-
Burlington	124	-	14.1	0.235	-	0.002	0.0	-
Edison	11	204	3,097.7	0.420	6.378	0.651	0.0	-
Edison	12	210	3,188.9	0.420	6.377	0.670	0.0	-
Edison	13	173	2,627.1	0.420	6.378	0.552	0.0	-
Edison	14	94	1,427.5	0.420	6.380	0.300	0.0	-
Edison	21	195	2,961.3	0.420	6.377	0.622	0.0	-
Edison	22	206	3,128.1	0.420	6.379	0.657	0.0	-
Edison	23	214	3,249.7	0.420	6.377	0.682	0.0	-
Edison	24	209	3,173.7	0.420	6.379	0.667	0.0	-
Edison	31	196	2,976.2	0.420	6.378	0.625	0.0	-
Edison	32	194	2,945.9	0.420	6.378	0.619	0.0	-
Edison	33	188	2,855.1	0.420	6.378	0.600	0.0	-
Edison	34	195	2,961.0	0.420	6.378	0.622	0.0	-
Essex	9	578	5,122.0	0.076	0.671	0.194	0.0	-
Essex	101	235	3,668.9	0.700	10.928	1.284	0.4	0.514
Essex	102	207	3,232.1	0.700	10.930	1.131	0.4	0.453
Essex	103	179	2,794.8	0.700	10.930	0.978	0.4	0.391
Essex	104	222	3,466.0	0.700	10.928	1.213	0.4	0.485
Essex	111	-	-	-	-	-	0.4	-
Essex	112	-	-	-	-	-	0.4	-
Essex	113	-	-	-	-	-	0.4	-
Essex	114	-	-	-	-	-	0.4	-
Essex	121	-	-	-	-	-	0.4	-
Essex	122	-	-	-	-	-	0.4	-
Essex	123	-	-	-	-	-	0.4	-
Essex	124	-	-	-	-	-	0.4	-
Kearny	9	-	-	-	-	-	0.4	-
Kearny	121	572	4,510.3	0.094	0.743	0.213	0.0	-
Kearny	122	584	5,498.2	0.082	0.774	0.226	0.0	-
Kearny	123	515	5,179.1	0.080	0.807	0.208	0.0	-
Kearny	124	539	4,574.8	0.084	0.712	0.192	0.0	-
Linden	5	713	7,501.2	0.038	0.402	0.143	0.0	-
Linden	6	725	8,555.9	0.034	0.400	0.145	0.0	-
Linden	7	685	8,152.5	0.035	0.420	0.144	0.0	-
Linden	8	662	7,122.0	0.036	0.385	0.128	0.0	-
Mercer	3	-	-	-	-	-	0.4	-
National Park	1	-	-	-	-	-	0.4	-
Salem	3	-	-	-	-	-	0.4	-
Sewaren	1	982	11,939.8	0.056	0.676	0.332	0.3	0.100
Sewaren	2	781	9,034.8	0.065	0.748	0.292	0.3	0.088
Sewaren	3	-	-	-	-	-	0.3	-
Sewaren	4	-	-	-	-	-	0.3	-
Sewaren	6	-	-	-	-	-	0.4	-
TOTAL		10,457	124,997			14.093		2.030

Calculation Results:

Emission Factor (EF) = 59.281 tons
 Baseline Emissions (BE) = 14.093 tons
 Reduction Factor (RF) = 18.343 tons

$$ER = \left(\frac{BE}{EF} \right) * RF$$

Emission Reduction (ER) = 4.361 tons

Emission Reduction (ER) Calculation pursuant to N.J.A.C. 7:27-19.29(c)

High Electric Demand Day: 7/17/2013								
Station	Unit ID	MW	Heat Input (mmbtu)	NOX Rate (lb/mmbtu)	NOX Rate (lb/mwh)	NOX Emissions (tons)	Control Factor (CF)	Unit Reduction Factor (Nox tons)
Bergen	3	-	-	-	-	-	0.4	-
Burlington	8	-	-	-	-	-	0.4	-
Burlington	91	-	-	-	-	-	0.4	-
Burlington	92	-	-	-	-	-	0.4	-
Burlington	93	-	-	-	-	-	0.4	-
Burlington	94	-	-	-	-	-	0.4	-
Burlington	111	-	-	-	-	-	0.4	-
Burlington	112	-	-	-	-	-	0.4	-
Burlington	113	-	-	-	-	-	0.4	-
Burlington	114	-	-	-	-	-	0.4	-
Burlington	121	520	4,825.6	0.085	0.793	0.206	0.0	-
Burlington	122	534	5,159.8	0.085	0.824	0.220	0.0	-
Burlington	123	530	5,149.4	0.088	0.856	0.227	0.0	-
Burlington	124	542	4,892.8	0.082	0.741	0.201	0.0	-
Edison	11	61	926.3	0.420	6.379	0.195	0.0	-
Edison	12	61	926.3	0.420	6.379	0.195	0.0	-
Edison	13	217	3,295.2	0.420	6.378	0.692	0.0	-
Edison	14	63	956.7	0.420	6.378	0.201	0.0	-
Edison	21	103	1,564.1	0.420	6.378	0.328	0.0	-
Edison	22	107	1,624.8	0.420	6.379	0.341	0.0	-
Edison	23	112	1,700.8	0.420	6.377	0.357	0.0	-
Edison	24	108	1,640.0	0.420	6.378	0.344	0.0	-
Edison	31	61	926.3	0.420	6.379	0.195	0.0	-
Edison	32	57	865.6	0.420	6.379	0.182	0.0	-
Edison	33	248	3,766.3	0.420	6.378	0.791	0.0	-
Edison	34	26	394.8	0.420	6.377	0.083	0.0	-
Essex	9	466	1,569.5	0.133	0.448	0.104	0.0	-
Essex	101	429	6,697.8	0.700	10.929	2.344	0.4	0.938
Essex	102	393	6,136.0	0.700	10.930	2.148	0.4	0.859
Essex	103	107	1,670.7	0.700	10.930	0.585	0.4	0.234
Essex	104	380	5,932.7	0.700	10.928	2.076	0.4	0.831
Essex	111	-	-	-	-	-	0.4	-
Essex	112	-	-	-	-	-	0.4	-
Essex	113	-	-	-	-	-	0.4	-
Essex	114	-	-	-	-	-	0.4	-
Essex	121	-	-	-	-	-	0.4	-
Essex	122	-	-	-	-	-	0.4	-
Essex	123	-	-	-	-	-	0.4	-
Essex	124	-	-	-	-	-	0.4	-
Kearny	9	-	-	-	-	-	0.4	-
Kearny	121	635	5,604.4	0.086	0.761	0.242	0.0	-
Kearny	122	657	6,426.1	0.082	0.805	0.264	0.0	-
Kearny	123	578	6,066.2	0.077	0.813	0.235	0.0	-
Kearny	124	674	6,094.6	0.078	0.704	0.237	0.0	-
Linden	5	907	9,689.5	0.034	0.358	0.163	0.0	-
Linden	6	886	10,462.7	0.031	0.369	0.164	0.0	-
Linden	7	777	9,614.3	0.035	0.438	0.170	0.0	-
Linden	8	762	8,391.5	0.033	0.361	0.137	0.0	-
Mercer	3	-	-	-	-	-	0.4	-
National Park	1	-	-	-	-	-	0.4	-
Salem	3	-	-	-	-	-	0.4	-
Sewaren	1	1,802	20,596.2	0.067	0.767	0.691	0.3	0.207
Sewaren	2	1,807	18,814.0	0.069	0.721	0.651	0.3	0.195
Sewaren	3	-	-	-	-	-	0.3	-
Sewaren	4	-	-	-	-	-	0.3	-
Sewaren	6	-	-	-	-	-	0.4	-
TOTAL		14,610	162,381			14.969		3.264

Calculation Results:

Emission Factor (EF) = 59.281 tons
 Baseline Emissions (BE) = 14.969 tons
 Reduction Factor (RF) = 18.343 tons

$$ER = \left(\frac{BE}{EF} \right) * RF$$

Emission Reduction (ER) = 4.632 tons

Emission Reduction (ER) Calculation pursuant to N.J.A.C. 7:27-19.29(c)

High Electric Demand Day: 7/18/2013								
Station	Unit ID	MW	Heat Input (mmbtu)	NOX Rate (lb/mmbtu)	NOX Rate (lb/mwh)	NOX Emissions (tons)	Control Factor (CF)	Unit Reduction Factor (Nox tons)
Bergen	3	33	553.7	0.700	11.745	0.194	0.4	0.078
Burlington	8	-	-	-	-	-	0.4	-
Burlington	91	59	928.4	0.54	8.50	0.251	0.4	0.10
Burlington	92	29	456.3	0.54	8.50	0.123	0.4	0.05
Burlington	93	35	550.8	0.54	8.50	0.149	0.4	0.06
Burlington	94	59	928.4	0.54	8.50	0.251	0.4	0.10
Burlington	111	23	362.0	0.54	8.50	0.098	0.4	0.04
Burlington	112	55	865.5	0.54	8.50	0.234	0.4	0.09
Burlington	113	54	849.7	0.54	8.50	0.229	0.4	0.09
Burlington	114	32	503.5	0.54	8.50	0.136	0.4	0.05
Burlington	121	451	3,986.8	0.086	0.756	0.171	0.0	-
Burlington	122	462	4,256.4	0.083	0.768	0.177	0.0	-
Burlington	123	458	4,196.0	0.087	0.794	0.182	0.0	-
Burlington	124	483	4,110.0	0.084	0.712	0.172	0.0	-
Edison	11	213	3,234.4	0.420	6.378	0.679	0.0	-
Edison	12	219	3,325.5	0.420	6.379	0.698	0.0	-
Edison	13	223	3,386.3	0.420	6.378	0.711	0.0	-
Edison	14	224	3,401.5	0.420	6.377	0.714	0.0	-
Edison	21	205	3,113.1	0.420	6.378	0.654	0.0	-
Edison	22	215	3,264.7	0.420	6.378	0.686	0.0	-
Edison	23	222	3,371.2	0.420	6.377	0.708	0.0	-
Edison	24	226	3,431.9	0.420	6.377	0.721	0.0	-
Edison	31	207	3,143.3	0.420	6.378	0.660	0.0	-
Edison	32	202	3,067.4	0.420	6.378	0.644	0.0	-
Edison	33	256	3,887.8	0.420	6.378	0.816	0.0	-
Edison	34	194	2,945.9	0.420	6.378	0.619	0.0	-
Essex	9	1,005	7,855.1	0.082	0.638	0.321	0.0	-
Essex	101	255	3,981.2	0.700	10.928	1.393	0.4	0.557
Essex	102	230	3,591.2	0.700	10.930	1.257	0.4	0.503
Essex	103	25	390.3	0.700	10.928	0.137	0.4	0.055
Essex	104	247	3,856.4	0.700	10.929	1.350	0.4	0.540
Essex	111	-	-	-	-	-	0.4	-
Essex	112	-	-	-	-	-	0.4	-
Essex	113	-	-	-	-	-	0.4	-
Essex	114	-	-	-	-	-	0.4	-
Essex	121	-	-	-	-	-	0.4	-
Essex	122	-	-	-	-	-	0.4	-
Essex	123	-	-	-	-	-	0.4	-
Essex	124	-	-	-	-	-	0.4	-
Kearny	9	-	-	-	-	-	0.4	-
Kearny	121	512	4,455.1	0.084	0.729	0.187	0.0	-
Kearny	122	505	4,990.8	0.082	0.811	0.205	0.0	-
Kearny	123	458	4,795.4	0.078	0.818	0.187	0.0	-
Kearny	124	514	4,589.6	0.081	0.722	0.185	0.0	-
Linden	5	890	8,897.4	0.034	0.341	0.152	0.0	-
Linden	6	902	10,641.0	0.032	0.379	0.171	0.0	-
Linden	7	836	10,417.3	0.035	0.432	0.180	0.0	-
Linden	8	808	8,863.0	0.034	0.370	0.150	0.0	-
Mercer	3	-	-	-	-	-	0.4	-
National Park	1	1	30.3	1.201	36.400	0.018	0.4	0.007
Salem	3	99	1,464.4	1.200	17.751	0.879	0.4	0.351
Sewaren	1	1,575	18,288.7	0.067	0.780	0.614	0.3	0.184
Sewaren	2	1,531	16,339.3	0.066	0.709	0.543	0.3	0.163
Sewaren	3	-	-	-	-	-	0.3	-
Sewaren	4	-	-	-	-	-	0.3	-
Sewaren	6	-	-	-	-	-	0.4	-
TOTAL		15,232	175,567			18.604		3.026

Calculation Results:

Emission Factor (EF) = 59.281 tons
 Baseline Emissions (BE) = 18.604 tons
 Reduction Factor (RF) = 18.343 tons

$$ER = \left(\frac{BE}{EF} \right) * RF$$

Emission Reduction (ER) = 5.756 tons

Emission Reduction (ER) Calculation pursuant to N.J.A.C. 7:27-19.29(c)

High Electric Demand Day: 7/19/2013								
Station	Unit ID	MW	Heat Input (mmbtu)	NOX Rate (lb/mmbtu)	NOX Rate (lb/mwh)	NOX Emissions (tons)	Control Factor (CF)	Unit Reduction Factor (Nox tons)
Bergen	3	131	2,198.0	0.700	11.744	0.769	0.4	0.308
Burlington	8	-	-	-	-	-	0.4	-
Burlington	91	78	1,227.5	0.54	8.50	0.331	0.4	0.13
Burlington	92	171	2,690.6	0.54	8.50	0.727	0.4	0.29
Burlington	93	153	2,407.4	0.54	8.50	0.650	0.4	0.26
Burlington	94	-	-	-	-	-	0.4	-
Burlington	111	-	-	-	-	-	0.4	-
Burlington	112	166	2,612.1	0.54	8.50	0.705	0.4	0.28
Burlington	113	92	1,447.6	0.54	8.50	0.391	0.4	0.16
Burlington	114	155	2,438.9	0.54	8.50	0.659	0.4	0.26
Burlington	121	547	5,111.7	0.087	0.814	0.223	0.0	-
Burlington	122	567	5,533.4	0.082	0.805	0.228	0.0	-
Burlington	123	544	5,275.3	0.084	0.819	0.223	0.0	-
Burlington	124	573	5,158.2	0.082	0.739	0.212	0.0	-
Edison	11	242	3,674.7	0.457	6.940	0.840	0.0	-
Edison	12	248	3,765.9	0.460	6.979	0.865	0.0	-
Edison	13	204	3,097.9	0.458	6.962	0.710	0.0	-
Edison	14	251	3,811.5	0.459	6.969	0.875	0.0	-
Edison	21	229	3,477.6	0.420	6.378	0.730	0.0	-
Edison	22	243	3,689.9	0.420	6.379	0.775	0.0	-
Edison	23	252	3,826.7	0.420	6.377	0.804	0.0	-
Edison	24	241	3,659.5	0.420	6.378	0.769	0.0	-
Edison	31	227	3,446.9	0.420	6.378	0.724	0.0	-
Edison	32	231	3,507.7	0.420	6.378	0.737	0.0	-
Edison	33	229	3,477.6	0.420	6.378	0.730	0.0	-
Edison	34	60	911.1	0.420	6.378	0.191	0.0	-
Essex	9	829	7,068.4	0.073	0.619	0.256	0.0	-
Essex	101	301	4,699.4	0.700	10.928	1.645	0.4	0.658
Essex	102	266	4,153.3	0.700	10.929	1.454	0.4	0.581
Essex	103	105	1,639.5	0.700	10.931	0.574	0.4	0.230
Essex	104	125	1,951.7	0.700	10.930	0.683	0.4	0.273
Essex	111	-	-	-	-	-	0.4	-
Essex	112	-	-	-	-	-	0.4	-
Essex	113	-	-	-	-	-	0.4	-
Essex	114	-	-	-	-	-	0.4	-
Essex	121	-	-	-	-	-	0.4	-
Essex	122	-	-	-	-	-	0.4	-
Essex	123	-	-	-	-	-	0.4	-
Essex	124	-	-	-	-	-	0.4	-
Kearny	9	-	-	-	-	-	0.4	-
Kearny	121	620	5,379.2	0.083	0.721	0.224	0.0	-
Kearny	122	635	6,106.3	0.080	0.766	0.243	0.0	-
Kearny	123	543	5,478.9	0.078	0.788	0.214	0.0	-
Kearny	124	636	5,402.9	0.078	0.666	0.212	0.0	-
Linden	5	917	10,532.0	0.036	0.416	0.191	0.0	-
Linden	6	949	11,587.2	0.031	0.381	0.181	0.0	-
Linden	7	922	11,765.1	0.034	0.429	0.198	0.0	-
Linden	8	899	10,216.8	0.033	0.376	0.169	0.0	-
Mercer	3	-	-	-	-	-	0.4	-
National Park	1	-	-	-	-	-	0.4	-
Salem	3	59	872.8	1.200	17.751	0.524	0.4	0.209
Sewaren	1	1,674	19,149.8	0.068	0.779	0.652	0.3	0.196
Sewaren	2	1,618	16,998.6	0.067	0.704	0.570	0.3	0.171
Sewaren	3	-	-	-	-	-	0.3	-
Sewaren	4	-	-	-	-	-	0.3	-
Sewaren	6	-	-	-	-	-	0.4	-
TOTAL		16,932	199,450			21.854		4.011

Calculation Results:

Emission Factor (EF) = 59.281 tons
 Baseline Emissions (BE) = 21.854 tons
 Reduction Factor (RF) = 18.343 tons

$$ER = \left(\frac{BE}{EF} \right) * RF$$

Emission Reduction (ER) = 6.762 tons

Attachment 4
HEDD Hourly Data

HEDD Hourly Operating and Emissions Records

				<i>NOx Emissions Mass (lbs)</i>	<i>NOx Emission Rate (lb/MMBtu)</i>	<i>Natural Gas Heat Input (MMBtu)</i>	<i>Oil Heat Input (MMBtu)</i>
<i>Run Time (hrs)</i>				<i>Load (MW)</i>			
Date: 6/25/2013							
Unit:	Burlington	121	121				
	11:00:00 AM	0.05	0.0	0.5	0.099	5.3	0.0
	12:00:00 PM	1.00	41.0	32.5	0.084	386.8	0.0
	1:00:00 PM	1.00	42.0	34.4	0.089	386.8	0.0
	2:00:00 PM	1.00	42.0	34.0	0.088	386.8	0.0
	3:00:00 PM	1.00	42.0	35.2	0.091	386.8	0.0
	4:00:00 PM	1.00	42.0	34.8	0.09	386.8	0.0
	5:00:00 PM	1.00	42.0	35.2	0.091	386.8	0.0
	6:00:00 PM	1.00	42.0	35.6	0.092	386.8	0.0
	7:00:00 PM	1.00	42.0	35.6	0.092	386.8	0.0
	8:00:00 PM	0.90	37.0	31.4	0.098	320.5	0.0
<u>Burlington 121</u>	<u>Total</u>	8.95	372.0	309.2	0.091	3,420.2	0.0
Unit:	Burlington	122	122				
	11:00:00 AM	0.05	0.0	0.7	0.147	4.7	0.0
	12:00:00 PM	1.00	35.0	34.2	0.092	371.4	0.0
	1:00:00 PM	1.00	36.0	32.0	0.084	380.6	0.0
	2:00:00 PM	1.00	36.0	31.1	0.082	379.3	0.0
	3:00:00 PM	1.00	37.0	32.0	0.083	385.0	0.0
	4:00:00 PM	0.62	35.0	20.9	0.092	226.9	0.0
	5:00:00 PM	0.58	38.0	19.0	0.084	225.6	0.0
	10:00:00 PM	0.03	0.0	0.3	0.123	2.7	0.0
	11:00:00 PM	0.10	0.0	2.5	0.233	10.8	0.0
<u>Burlington 122</u>	<u>Total</u>	5.38	217.0	172.7	0.113	1,987.0	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
				<i>Run Time</i>	<i>Load</i>		
				<i>(hrs)</i>	<i>(MW)</i>		
Date: 6/25/2013							
Unit:	Burlington	123	123				
	11:00:00 AM	0.05	0.0	1.0	0.17	5.6	0.0
	12:00:00 PM	1.00	39.0	36.1	0.093	388.2	0.0
	1:00:00 PM	1.00	41.0	36.3	0.091	399.3	0.0
	2:00:00 PM	1.00	40.0	35.9	0.09	399.1	0.0
	3:00:00 PM	1.00	41.0	36.6	0.091	402.5	0.0
	4:00:00 PM	1.00	41.0	35.8	0.089	402.8	0.0
	5:00:00 PM	1.00	41.0	36.6	0.091	402.6	0.0
	6:00:00 PM	1.00	41.0	37.1	0.092	403.7	0.0
	7:00:00 PM	1.00	41.0	36.3	0.09	403.7	0.0
	8:00:00 PM	0.90	36.0	32.1	0.097	331.2	0.0
<u>Burlington</u>	<u>123</u>	<u>Total</u>	8.95	361.0	0.099	3,538.7	0.0
Unit:	Kearny	121	121				
	10:00:00 AM	0.38	33.0	14.7	0.118	124.5	0.0
	11:00:00 AM	1.00	43.0	39.2	0.093	421.7	0.0
	12:00:00 PM	1.00	42.0	39.2	0.093	421.7	0.0
	1:00:00 PM	1.00	42.0	39.2	0.093	421.7	0.0
	2:00:00 PM	1.00	42.0	39.2	0.093	421.7	0.0
	3:00:00 PM	1.00	43.0	39.2	0.093	421.7	0.0
	4:00:00 PM	1.00	44.0	39.2	0.093	421.7	0.0
	5:00:00 PM	1.00	43.0	39.2	0.093	421.7	0.0
	6:00:00 PM	1.00	43.0	39.2	0.093	421.7	0.0
	7:00:00 PM	1.00	43.0	39.2	0.093	421.7	0.0
	8:00:00 PM	1.00	43.0	32.0	0.076	421.7	0.0
	9:00:00 PM	0.53	35.0	15.4	0.089	173.6	0.0
<u>Kearny</u>	<u>121</u>	<u>Total</u>	10.91	496.0	0.093	4,515.0	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
				<i>Load</i>			
				<i>(MW)</i>			
				<i>Run Time</i>			
				<i>(hrs)</i>			
Date: 6/25/2013							
Unit:	Kearny	122	122				
	10:00:00 AM	0.38	34.0	15.7	0.098	159.6	0.0
	11:00:00 AM	1.00	42.0	42.0	0.087	482.8	0.0
	12:00:00 PM	1.00	41.0	41.0	0.085	482.8	0.0
	1:00:00 PM	1.00	40.0	39.2	0.088	445.6	0.0
	2:00:00 PM	1.00	40.0	39.2	0.088	445.6	0.0
	3:00:00 PM	1.00	42.0	41.5	0.086	482.8	0.0
	4:00:00 PM	1.00	44.0	40.6	0.084	482.8	0.0
	5:00:00 PM	1.00	43.0	40.1	0.083	482.8	0.0
	6:00:00 PM	1.00	43.0	40.6	0.084	482.8	0.0
	7:00:00 PM	1.00	43.0	41.0	0.085	482.8	0.0
	8:00:00 PM	1.00	43.0	41.0	0.085	482.8	0.0
	9:00:00 PM	0.53	35.0	22.3	0.1	222.6	0.0
Kearny	122	Total	10.91	490.0	444.1	5,135.8	0.0
Unit:	Kearny	123	123				
	10:00:00 AM	0.38	34.0	10.8	0.08	135.1	0.0
	11:00:00 AM	1.00	43.0	27.3	0.065	420.5	0.0
	12:00:00 PM	1.00	43.0	27.8	0.066	420.5	0.0
	1:00:00 PM	1.00	43.0	27.8	0.066	420.5	0.0
	2:00:00 PM	1.00	43.0	27.8	0.066	420.5	0.0
	3:00:00 PM	1.00	43.0	26.5	0.063	420.5	0.0
	4:00:00 PM	1.00	43.0	29.9	0.071	420.5	0.0
	5:00:00 PM	1.00	43.0	30.7	0.073	420.5	0.0
	6:00:00 PM	1.00	43.0	31.1	0.074	420.5	0.0
	7:00:00 PM	1.00	43.0	32.0	0.076	420.5	0.0
	8:00:00 PM	1.00	43.0	32.0	0.076	420.5	0.0
	9:00:00 PM	0.57	36.0	19.4	0.09	215.3	0.0
Kearny	123	Total	10.95	500.0	323.1	4,555.4	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>Load</i>						
<i>(hrs)</i>	<i>(MW)</i>						
Date: 6/25/2013							
Unit:	Kearny	124	124				
	10:00:00 AM	0.38	34.0	13.0	0.095	137.0	0.0
	11:00:00 AM	1.00	43.0	34.9	0.079	441.2	0.0
	12:00:00 PM	1.00	43.0	35.3	0.08	441.2	0.0
	1:00:00 PM	1.00	42.0	35.7	0.081	441.2	0.0
	2:00:00 PM	1.00	42.0	35.3	0.08	441.2	0.0
	3:00:00 PM	1.00	43.0	34.0	0.077	441.2	0.0
	4:00:00 PM	1.00	44.0	33.1	0.075	441.2	0.0
	5:00:00 PM	1.00	44.0	33.5	0.076	441.2	0.0
	6:00:00 PM	1.00	44.0	33.5	0.076	441.2	0.0
	7:00:00 PM	1.00	44.0	34.9	0.079	441.2	0.0
	8:00:00 PM	1.00	44.0	34.4	0.078	441.2	0.0
	9:00:00 PM	0.57	36.0	21.3	0.094	226.4	0.0
<u>Kearny</u>	<u>124</u>	<u>Total</u>	10.95	503.0	0.081	4,775.4	0.0
Unit:	Linden	5	5				
	2:00:00 PM	0.78	61.0	28.9	0.053	544.6	0.0
	3:00:00 PM	1.00	75.0	21.9	0.027	811.1	0.0
	4:00:00 PM	1.00	74.0	25.9	0.032	809.6	0.0
	5:00:00 PM	1.00	73.0	25.5	0.032	796.5	0.0
	6:00:00 PM	1.00	73.0	25.4	0.032	794.0	0.0
	7:00:00 PM	1.00	73.0	27.1	0.034	797.6	0.0
	8:00:00 PM	0.90	58.0	28.0	0.047	595.2	0.0
<u>Linden</u>	<u>5</u>	<u>Total</u>	6.68	487.0	0.037	5,148.6	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>Load</i>						
<i>(hrs)</i>	<i>(MW)</i>						
Date: 6/25/2013							
Unit:	Linden	6	6				
	2:00:00 PM	0.83	58.0	33.5	0.054	620.9	0.0
	3:00:00 PM	1.00	76.0	23.2	0.025	927.4	0.0
	4:00:00 PM	1.00	75.0	23.0	0.025	918.4	0.0
	5:00:00 PM	1.00	74.0	21.8	0.024	906.5	0.0
	6:00:00 PM	1.00	74.0	22.6	0.025	905.0	0.0
	7:00:00 PM	1.00	75.0	22.7	0.025	909.1	0.0
	8:00:00 PM	0.80	67.0	26.7	0.04	667.5	0.0
<u>Linden</u>	<u>6</u>	<u>Total</u>	6.63	499.0	173.6	5,854.8	0.0
Unit:	Linden	7	7				
	2:00:00 PM	0.83	53.0	39.6	0.068	582.2	0.0
	3:00:00 PM	1.00	72.0	29.9	0.034	878.6	0.0
	4:00:00 PM	1.00	72.0	28.8	0.033	873.6	0.0
	5:00:00 PM	1.00	66.0	35.4	0.043	823.8	0.0
	6:00:00 PM	0.03	5.0	1.4	0.174	8.2	0.0
<u>Linden</u>	<u>7</u>	<u>Total</u>	3.86	268.0	135.1	3,166.3	0.0
<u>6/25/2013</u>	<u>Total</u>	84.17	4,193.0	2,858.0	0.081	42,097.2	0.0
Date: 6/26/2013							
Unit:	Burlington	122	122				
	2:00:00 AM	0.25	3.0	9.3	0.284	32.8	0.0
<u>Burlington</u>	<u>122</u>	<u>Total</u>	0.25	3.0	9.3	32.8	0.0
Unit:	Kearny	121	121				
	1:00:00 PM	0.48	35.0	16.0	0.102	157.2	0.0
	2:00:00 PM	1.00	43.0	33.3	0.079	421.7	0.0
	3:00:00 PM	1.00	43.0	32.9	0.078	421.7	0.0
	4:00:00 PM	1.00	43.0	32.9	0.078	421.7	0.0
	5:00:00 PM	0.58	33.0	19.0	0.1	190.0	0.0
<u>Kearny</u>	<u>121</u>	<u>Total</u>	4.06	197.0	134.2	1,612.3	0.0

* Only hours in which a unit operated are listed.

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				NOx Emissions	NOx Emission	Natural Gas	Oil Heat Input
				Mass	Rate	Heat Input	
				(lbs)	(lb/MMBtu)	(MMBtu)	(MMBtu)
Date: 6/26/2013							
Unit:	Kearny	122	122				
	1:00:00 PM	0.43	37.0	19.0	0.099	191.6	0.0
	2:00:00 PM	1.00	44.0	41.0	0.085	482.8	0.0
	3:00:00 PM	1.00	43.0	41.0	0.085	482.8	0.0
	4:00:00 PM	1.00	43.0	40.6	0.084	482.8	0.0
	5:00:00 PM	0.58	35.0	24.6	0.101	243.6	0.0
Kearny	122	Total	4.01	202.0	166.2	0.091	1,883.6
Unit:	Kearny	123	123				
	1:00:00 PM	0.48	35.0	14.0	0.082	170.6	0.0
	2:00:00 PM	1.00	41.0	29.9	0.071	420.5	0.0
	3:00:00 PM	1.00	40.0	26.4	0.07	377.7	0.0
	4:00:00 PM	1.00	39.0	26.4	0.07	377.7	0.0
	5:00:00 PM	0.58	35.0	19.0	0.092	206.2	0.0
Kearny	123	Total	4.06	190.0	115.7	0.077	1,552.7
Unit:	Kearny	124	124				
	1:00:00 PM	0.47	37.0	16.6	0.089	186.7	0.0
	2:00:00 PM	1.00	44.0	33.1	0.075	441.2	0.0
	3:00:00 PM	1.00	44.0	34.9	0.079	441.2	0.0
	4:00:00 PM	1.00	43.0	36.2	0.082	441.2	0.0
	5:00:00 PM	0.58	36.0	22.3	0.097	230.4	0.0
Kearny	124	Total	4.05	204.0	143.2	0.084	1,740.7
6/26/2013	Total	16.43	796.0	568.5	0.094	6,822.0	0.0

Date: 7/5/2013

Unit:	Burlington 121	121					
	3:00:00 PM	0.18	23.0	6.2	0.125	49.3	0.0
	4:00:00 PM	1.00	42.0	34.8	0.085	409.9	0.0
	5:00:00 PM	1.00	42.0	35.2	0.085	413.8	0.0
	6:00:00 PM	1.00	42.0	35.1	0.085	412.6	0.0
	7:00:00 PM	0.63	35.0	21.7	0.095	228.5	0.0
Burlington 121	Total	3.81	184.0	133.0	0.095	1,514.1	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
	<i>Run Time</i>	<i>Load</i>					
	<i>(hrs)</i>	<i>(MW)</i>					
Date: 7/5/2013							
Unit:	Burlington	122	122				
	3:00:00 PM	0.18	24.0	6.3	0.128	49.1	0.0
	4:00:00 PM	1.00	42.0	33.6	0.084	400.0	0.0
	5:00:00 PM	1.00	42.0	33.4	0.083	402.1	0.0
	6:00:00 PM	1.00	42.0	34.2	0.085	402.0	0.0
	7:00:00 PM	0.62	36.0	22.1	0.1	221.3	0.0
<u>Burlington 122</u>	<u>Total</u>	3.80	186.0	129.6	0.096	1,474.5	0.0
Unit:	Burlington	123	123				
	3:00:00 PM	0.20	20.0	7.2	0.143	50.1	0.0
	4:00:00 PM	1.00	38.0	32.7	0.088	371.5	0.0
	5:00:00 PM	1.00	38.0	32.6	0.087	375.1	0.0
	6:00:00 PM	1.00	38.0	33.1	0.088	375.7	0.0
	7:00:00 PM	0.62	32.0	21.3	0.103	206.6	0.0
<u>Burlington 123</u>	<u>Total</u>	3.82	166.0	126.8	0.102	1,379.0	0.0
Unit:	Burlington	124	124				
	3:00:00 PM	0.18	26.0	6.2	0.132	46.7	0.0
	4:00:00 PM	1.00	42.0	30.4	0.082	371.0	0.0
	5:00:00 PM	1.00	42.0	29.5	0.079	374.0	0.0
	6:00:00 PM	1.00	42.0	29.3	0.078	375.9	0.0
	7:00:00 PM	0.63	36.0	18.8	0.09	208.5	0.0
<u>Burlington 124</u>	<u>Total</u>	3.81	188.0	114.1	0.092	1,376.1	0.0
Unit:	Essex	101 A/B	2001				
	2:00:00 PM	1.00	19.0	207.6	0.7	296.6	0.0
	4:00:00 PM	1.00	20.0	218.6	0.7	312.3	0.0
	5:00:00 PM	1.00	33.0	360.6	0.7	515.2	0.0
	6:00:00 PM	1.00	33.0	360.6	0.7	515.2	0.0
	7:00:00 PM	1.00	6.0	65.6	0.7	93.7	0.0
<u>Essex</u>	<u>101 A/B</u>	<u>Total</u>	5.00	111.0	1,213.0	0.700	1,733.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
	<i>Run Time</i>	<i>Load</i>					
	<i>(hrs)</i>	<i>(MW)</i>					
Date: 7/5/2013							
Unit:	Essex	102 A/B	4001				
	2:00:00 PM	1.00	17.0	185.8	0.7	265.4	0.0
	4:00:00 PM	1.00	15.0	163.9	0.7	234.2	0.0
	5:00:00 PM	1.00	18.0	196.7	0.7	281.0	0.0
	6:00:00 PM	1.00	13.0	142.1	0.7	203.0	0.0
	7:00:00 PM	1.00	3.0	32.8	0.7	46.8	0.0
Essex	102 A/B	Total	5.00	66.0	0.700	1,030.4	0.0
Unit:	Essex	103 A/B	10001				
	2:00:00 PM	1.00	12.0	131.2	0.7	187.4	0.0
	4:00:00 PM	1.00	7.0	76.5	0.7	109.3	0.0
	5:00:00 PM	1.00	15.0	163.9	0.7	234.2	0.0
	6:00:00 PM	1.00	4.0	43.8	0.7	62.5	0.0
Essex	103 A/B	Total	4.00	38.0	0.700	593.4	0.0
Unit:	Essex	104 A/B	12001				
	2:00:00 PM	1.00	4.0	43.8	0.7	62.5	0.0
	4:00:00 PM	1.00	16.0	174.9	0.7	249.8	0.0
	5:00:00 PM	1.00	32.0	349.7	0.7	499.6	0.0
	6:00:00 PM	1.00	10.0	109.3	0.7	156.1	0.0
Essex	104 A/B	Total	4.00	62.0	0.700	968.0	0.0
Unit:	Essex	9	35001				
	2:00:00 PM	1.00	68.0	47.3	0.077	614.8	0.0
	3:00:00 PM	0.72	67.0	30.1	0.079	380.8	0.0
	4:00:00 PM	1.00	74.0	52.1	0.074	704.4	0.0
	5:00:00 PM	0.52	74.0	26.8	0.073	367.5	0.0
Essex	9	Total	3.24	283.0	0.076	2,067.5	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
				<i>Run Time</i>	<i>Load</i>		
				<i>(hrs)</i>	<i>(MW)</i>		
Date: 7/5/2013							
Unit:	Kearny	121	121				
	11:00:00 AM	0.25	24.0	6.9	0.107	64.0	0.0
	12:00:00 PM	1.00	44.0	27.6	0.069	400.4	0.0
	1:00:00 PM	1.00	44.0	28.0	0.07	400.2	0.0
	2:00:00 PM	1.00	43.0	29.9	0.076	393.6	0.0
	3:00:00 PM	1.00	42.0	31.5	0.081	389.2	0.0
	4:00:00 PM	1.00	43.0	31.4	0.08	392.1	0.0
	5:00:00 PM	0.65	36.0	19.8	0.088	224.7	0.0
Kearny	121	Total	5.90	276.0	175.0	0.082	2,264.2
Unit:	Kearny	122	122				
	11:00:00 AM	0.25	30.0	8.7	0.105	83.0	0.0
	12:00:00 PM	1.00	44.0	34.8	0.079	441.0	0.0
	1:00:00 PM	1.00	43.0	34.1	0.078	437.3	0.0
	2:00:00 PM	1.00	42.0	33.8	0.079	427.9	0.0
	3:00:00 PM	1.00	42.0	34.2	0.081	422.7	0.0
	4:00:00 PM	1.00	42.0	35.1	0.083	422.9	0.0
	5:00:00 PM	0.67	36.0	23.3	0.092	253.5	0.0
Kearny	122	Total	5.92	279.0	204.0	0.085	2,488.3
Unit:	Kearny	123	123				
	11:00:00 AM	0.25	26.0	7.5	0.096	77.9	0.0
	12:00:00 PM	1.00	34.0	31.6	0.083	380.2	0.0
	1:00:00 PM	1.00	34.0	31.5	0.083	380.1	0.0
	2:00:00 PM	1.00	36.0	34.7	0.088	393.9	0.0
	3:00:00 PM	1.00	37.0	33.9	0.085	399.4	0.0
	4:00:00 PM	1.00	37.0	34.4	0.086	399.7	0.0
	5:00:00 PM	0.68	32.0	23.7	0.096	246.6	0.0
Kearny	123	Total	5.93	236.0	197.2	0.088	2,277.8

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
				<i>Run Time</i>	<i>Load</i>		
				<i>(hrs)</i>	<i>(MW)</i>		
Date: 7/5/2013							
Unit:	Kearny	124	124				
	12:00:00 PM	0.25	31.0	7.9	0.096	82.7	0.0
	1:00:00 PM	1.00	43.0	29.5	0.069	428.0	0.0
	2:00:00 PM	1.00	43.0	30.4	0.071	428.0	0.0
	3:00:00 PM	1.00	43.0	32.4	0.076	426.1	0.0
	4:00:00 PM	1.00	43.0	33.1	0.078	424.0	0.0
	5:00:00 PM	1.00	43.0	32.7	0.077	424.5	0.0
	6:00:00 PM	0.62	42.0	19.8	0.077	257.1	0.0
Kearny	124	Total	5.87	288.0	185.8	0.078	2,470.4
Unit:	Linden	5	5				
	2:00:00 PM	0.93	61.0	34.5	0.053	650.7	0.0
	3:00:00 PM	1.00	75.0	26.2	0.032	817.4	0.0
	4:00:00 PM	1.00	75.0	26.2	0.032	819.7	0.0
	5:00:00 PM	1.00	75.0	27.1	0.033	821.4	0.0
	6:00:00 PM	0.97	60.0	29.9	0.045	663.1	0.0
Linden	5	Total	4.90	346.0	143.9	0.039	3,772.3
Unit:	Linden	6	6				
	2:00:00 PM	0.95	61.0	40.1	0.054	743.1	0.0
	3:00:00 PM	1.00	76.0	28.1	0.03	936.4	0.0
	4:00:00 PM	1.00	77.0	28.1	0.03	936.6	0.0
	5:00:00 PM	1.00	77.0	29.1	0.031	940.2	0.0
	6:00:00 PM	0.98	60.0	34.8	0.046	756.6	0.0
Linden	6	Total	4.93	351.0	160.2	0.038	4,312.9

* Only hours in which a unit operated are listed.

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			<i>Run Time (hrs)</i>	<i>Load (MW)</i>	<i>NOx Emissions Mass (lbs)</i>	<i>NOx Emission Rate (lb/MMBtu)</i>	<i>Natural Gas Heat Input (MMBtu)</i>	<i>Oil Heat Input (MMBtu)</i>
Date: 7/5/2013								
Unit:	Linden	7	7					
		1:00:00 PM	0.78	51.0	35.9	0.065	552.6	0.0
		2:00:00 PM	1.00	72.0	29.2	0.032	912.7	0.0
		3:00:00 PM	1.00	72.0	29.3	0.032	914.2	0.0
		4:00:00 PM	1.00	72.0	28.9	0.032	903.5	0.0
		5:00:00 PM	1.00	73.0	29.1	0.032	908.4	0.0
		6:00:00 PM	1.00	69.0	37.3	0.043	866.3	0.0
		7:00:00 PM	0.07	5.0	2.8	0.169	16.8	0.0
<u>Linden</u>	<u>7</u>	<u>Total</u>	5.85	414.0	192.5	0.058	5,074.5	0.0
Unit:	Linden	8	8					
		1:00:00 PM	0.78	52.0	30.6	0.06	509.1	0.0
		2:00:00 PM	1.00	71.0	25.1	0.031	811.2	0.0
		3:00:00 PM	1.00	71.0	26.3	0.031	847.9	0.0
		4:00:00 PM	1.00	71.0	28.3	0.032	884.5	0.0
		5:00:00 PM	1.00	71.0	28.6	0.032	894.1	0.0
		6:00:00 PM	1.00	67.0	35.0	0.041	854.8	0.0
		7:00:00 PM	0.07	4.0	2.7	0.176	15.3	0.0
<u>Linden</u>	<u>8</u>	<u>Total</u>	5.85	407.0	176.6	0.058	4,816.9	0.0
	<u>7/5/2013</u>	<u>Total</u>	81.63	3,881.0	5,122.5	0.195	39,613.3	0.0
Date: 7/15/2013								
Unit:	Bergen	3	3001					
		2:00:00 PM	1.00	4.0	47.0	0.7	67.1	0.0
		3:00:00 PM	1.00	14.0	164.4	0.7	234.9	0.0
		4:00:00 PM	1.00	14.0	164.4	0.7	234.9	0.0
		5:00:00 PM	1.00	15.0	176.2	0.7	251.7	0.0
		6:00:00 PM	1.00	15.0	176.2	0.7	251.7	0.0
		7:00:00 PM	1.00	6.0	70.5	0.7	100.7	0.0
<u>Bergen</u>	<u>3</u>	<u>Total</u>	6.00	68.0	798.7	0.700	1,141.0	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
				<i>Run Time</i>	<i>Load</i>		
				<i>(hrs)</i>	<i>(MW)</i>		
Date: 7/15/2013							
Unit:	Burlington	121	121				
	10:00:00 AM	0.63	36.0	18.7	0.085	220.4	0.0
	11:00:00 AM	1.00	41.0	32.0	0.084	381.3	0.0
	12:00:00 PM	1.00	41.0	31.5	0.083	379.9	0.0
	1:00:00 PM	1.00	40.0	31.7	0.085	373.5	0.0
	2:00:00 PM	1.00	40.0	33.5	0.09	371.9	0.0
	3:00:00 PM	0.33	27.0	9.7	0.105	92.2	0.0
	4:00:00 PM	0.57	34.0	16.2	0.086	189.1	0.0
	5:00:00 PM	1.00	39.0	27.2	0.073	373.1	0.0
	6:00:00 PM	1.00	40.0	29.5	0.079	372.9	0.0
	7:00:00 PM	1.00	40.0	30.6	0.081	377.8	0.0
	8:00:00 PM	1.00	41.0	30.8	0.08	385.6	0.0
	9:00:00 PM	1.00	41.0	31.3	0.081	386.3	0.0
	10:00:00 PM	0.13	12.0	3.1	0.133	23.7	0.0
<u>Burlington 121</u>	<u>Total</u>	10.66	472.0	325.9	0.088	3,927.8	0.0
Unit:	Burlington	122	122				
	10:00:00 AM	0.63	37.0	22.5	0.095	236.6	0.0
	11:00:00 AM	1.00	42.0	32.6	0.08	408.0	0.0
	12:00:00 PM	1.00	41.0	33.0	0.081	406.9	0.0
	1:00:00 PM	1.00	41.0	33.5	0.084	398.8	0.0
	2:00:00 PM	1.00	41.0	32.9	0.083	396.3	0.0
	3:00:00 PM	0.32	29.0	9.9	0.101	98.2	0.0
	4:00:00 PM	0.55	37.0	19.1	0.095	201.6	0.0
	5:00:00 PM	1.00	41.0	27.8	0.069	402.3	0.0
	6:00:00 PM	1.00	41.0	31.4	0.078	402.7	0.0
	7:00:00 PM	1.00	42.0	30.9	0.076	406.4	0.0
	8:00:00 PM	1.00	42.0	32.2	0.079	407.1	0.0
	9:00:00 PM	1.00	42.0	33.8	0.083	406.8	0.0
	10:00:00 PM	0.15	13.0	4.3	0.142	30.5	0.0
<u>Burlington 122</u>	<u>Total</u>	10.65	489.0	344.0	0.088	4,202.1	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
				<i>Run Time</i>	<i>Load</i>		
				<i>(hrs)</i>	<i>(MW)</i>		
Date: 7/15/2013							
Unit:	Burlington	123	123				
	10:00:00 AM	0.65	36.0	23.2	0.098	237.0	0.0
	11:00:00 AM	1.00	41.0	35.0	0.086	406.9	0.0
	12:00:00 PM	1.00	41.0	34.2	0.084	407.1	0.0
	1:00:00 PM	1.00	41.0	34.6	0.086	402.9	0.0
	2:00:00 PM	1.00	41.0	33.7	0.084	401.6	0.0
	3:00:00 PM	0.33	28.0	11.2	0.11	101.5	0.0
	4:00:00 PM	0.57	35.0	20.2	0.1	202.1	0.0
	5:00:00 PM	1.00	41.0	28.7	0.074	388.5	0.0
	6:00:00 PM	1.00	41.0	32.8	0.082	400.6	0.0
	7:00:00 PM	1.00	41.0	33.1	0.082	403.1	0.0
	8:00:00 PM	1.00	41.0	33.3	0.082	405.6	0.0
	9:00:00 PM	1.00	41.0	35.1	0.086	407.6	0.0
	10:00:00 PM	0.15	13.0	4.8	0.158	30.5	0.0
<u>Burlington 123</u>	<u>Total</u>	10.70	481.0	359.9	0.093	4,195.0	0.0
Unit:	Burlington	124	124				
	10:00:00 AM	0.65	37.0	26.6	0.119	223.4	0.0
	11:00:00 AM	0.30	16.0	13.1	0.215	61.1	0.0
	12:00:00 PM	1.00	38.0	29.2	0.082	355.6	0.0
	1:00:00 PM	1.00	38.0	29.7	0.085	349.3	0.0
	2:00:00 PM	1.00	38.0	29.7	0.085	349.3	0.0
	3:00:00 PM	0.32	26.0	9.1	0.106	86.0	0.0
	4:00:00 PM	0.57	33.0	18.1	0.1	180.6	0.0
	5:00:00 PM	1.00	38.0	25.2	0.071	354.6	0.0
	6:00:00 PM	1.00	38.0	25.7	0.073	352.7	0.0
	7:00:00 PM	1.00	38.0	25.8	0.073	353.1	0.0
	8:00:00 PM	1.00	38.0	26.1	0.074	353.1	0.0
	9:00:00 PM	1.00	38.0	26.9	0.076	353.3	0.0
	10:00:00 PM	0.13	10.0	1.7	0.082	21.2	0.0
<u>Burlington 124</u>	<u>Total</u>	9.97	426.0	286.9	0.095	3,393.3	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time (hrs)</i>	<i>Load (MW)</i>	<i>NOx Emissions Mass (lbs)</i>	<i>NOx Emission Rate (lb/MMBtu)</i>	<i>Natural Gas Heat Input (MMBtu)</i>	<i>Oil Heat Input (MMBtu)</i>
Date: 7/15/2013								
Unit:	Burlington	8	4001					
	2:00:00 PM		1.00	6.0	113.3	1.2	0.0	94.4
	3:00:00 PM		1.00	16.0	302.2	1.2	0.0	251.8
	4:00:00 PM		1.00	16.0	302.2	1.2	0.0	251.8
	5:00:00 PM		1.00	16.0	302.2	1.2	0.0	251.8
	6:00:00 PM		1.00	8.0	151.1	1.2	0.0	125.9
<u>Burlington</u>	<u>8</u>	<u>Total</u>	5.00	62.0	1,171.0	1.200	0.0	975.7
Unit:	Burlington	91 A/B	12001					
	2:00:00 PM		1.00	1.0	8.5	0.54	0.0	15.7
	3:00:00 PM		1.00	35.0	297.4	0.54	0.0	550.7
	4:00:00 PM		1.00	35.0	297.4	0.54	0.0	550.7
	5:00:00 PM		1.00	35.0	297.4	0.54	0.0	550.7
	6:00:00 PM		1.00	15.0	127.4	0.54	0.0	236.0
<u>Burlington</u>	<u>91 A/B</u>	<u>Total</u>	5.00	121.0	1,028.1	0.540	0.0	1,903.8
Unit:	Burlington	92 A/B	14001					
	2:00:00 PM		1.00	1.0	8.5	0.54	0.0	15.7
	3:00:00 PM		1.00	15.0	127.4	0.54	0.0	236.0
	4:00:00 PM		1.00	1.0	8.5	0.54	0.0	15.7
<u>Burlington</u>	<u>92 A/B</u>	<u>Total</u>	3.00	17.0	144.4	0.540	0.0	267.4
Unit:	Burlington	93 A/B	16001					
	2:00:00 PM		1.00	3.0	25.5	0.54	0.0	47.2
	3:00:00 PM		1.00	38.0	322.9	0.54	0.0	597.9
	4:00:00 PM		1.00	8.0	68.0	0.54	0.0	125.9
<u>Burlington</u>	<u>93 A/B</u>	<u>Total</u>	3.00	49.0	416.4	0.540	0.0	771.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions Mass (lbs)</i>	<i>NOx Emission Rate (lb/MMBtu)</i>	<i>Natural Gas Heat Input (MMBtu)</i>	<i>Oil Heat Input (MMBtu)</i>
				<i>Run Time (hrs)</i>	<i>Load (MW)</i>		
Date: 7/15/2013							
Unit:	Burlington	111 A/B	28001				
	1:00:00 PM	1.00	2.0	17.0	0.54	0.0	31.5
	2:00:00 PM	1.00	15.0	127.4	0.54	0.0	236.0
	3:00:00 PM	1.00	15.0	127.4	0.54	0.0	236.0
	4:00:00 PM	1.00	15.0	127.4	0.54	0.0	236.0
	5:00:00 PM	1.00	15.0	127.4	0.54	0.0	236.0
	6:00:00 PM	1.00	6.0	51.0	0.54	0.0	94.4
<u>Burlington 111 A/B Total</u>				6.00	68.0	577.6	0.540
Unit:	Burlington	112 A/B	30001				
	1:00:00 PM	1.00	6.0	51.0	0.54	0.0	94.4
	2:00:00 PM	1.00	12.0	102.0	0.54	0.0	188.8
	4:00:00 PM	1.00	13.0	110.5	0.54	0.0	204.6
	5:00:00 PM	1.00	35.0	297.4	0.54	0.0	550.7
	6:00:00 PM	1.00	34.0	288.9	0.54	0.0	535.0
	7:00:00 PM	1.00	35.0	297.4	0.54	0.0	550.7
	8:00:00 PM	1.00	35.0	297.4	0.54	0.0	550.7
	9:00:00 PM	1.00	18.0	152.9	0.54	0.0	283.2
<u>Burlington 112 A/B Total</u>				8.00	188.0	1,597.5	0.540
Unit:	Burlington	113 A/B	32001				
	2:00:00 PM	1.00	1.0	8.5	0.54	0.0	15.7
	3:00:00 PM	1.00	25.0	212.4	0.54	0.0	393.4
	4:00:00 PM	1.00	5.0	42.5	0.54	0.0	78.7
<u>Burlington 113 A/B Total</u>				3.00	31.0	263.4	0.540

* Only hours in which a unit operated are listed.

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			<i>Run Time (hrs)</i>	<i>Load (MW)</i>	<i>NOx Emissions Mass (lbs)</i>	<i>NOx Emission Rate (lb/MMBtu)</i>	<i>Natural Gas Heat Input (MMBtu)</i>	<i>Oil Heat Input (MMBtu)</i>
Date: 7/15/2013								
Unit:	Burlington	114 A/B	34001					
	1:00:00 PM		1.00	3.0	25.5	0.54	0.0	47.2
	2:00:00 PM		1.00	35.0	297.4	0.54	0.0	550.7
	3:00:00 PM		1.00	34.0	288.9	0.54	0.0	535.0
	4:00:00 PM		1.00	36.0	305.9	0.54	0.0	566.5
	5:00:00 PM		1.00	34.0	288.9	0.54	0.0	535.0
	6:00:00 PM		1.00	16.0	136.0	0.54	0.0	251.8
<u>Burlington</u>	<u>114 A/B</u>	<u>Total</u>	6.00	158.0	1,342.6	0.540	0.0	2,486.2
Unit:	Edison	11 A/B	1001					
	12:00:00 PM		1.00	1.0	6.4	0.42	15.2	0.0
	1:00:00 PM		1.00	33.0	210.5	0.42	501.1	0.0
	2:00:00 PM		1.00	33.0	210.5	0.42	501.1	0.0
	3:00:00 PM		1.00	33.0	210.5	0.42	501.1	0.0
	4:00:00 PM		1.00	5.0	31.9	0.42	75.9	0.0
	5:00:00 PM		1.00	12.0	76.5	0.42	182.2	0.0
	6:00:00 PM		1.00	33.0	210.5	0.42	501.1	0.0
	7:00:00 PM		1.00	33.0	210.5	0.42	501.1	0.0
	8:00:00 PM		1.00	21.0	133.9	0.42	318.9	0.0
<u>Edison</u>	<u>11 A/B</u>	<u>Total</u>	9.00	204.0	1,301.2	0.420	3,097.7	0.0
Unit:	Edison	12 A/B	3001					
	12:00:00 PM		1.00	1.0	6.4	0.42	15.2	0.0
	1:00:00 PM		1.00	33.0	210.5	0.42	501.1	0.0
	2:00:00 PM		1.00	33.0	210.5	0.42	501.1	0.0
	3:00:00 PM		1.00	33.0	210.5	0.42	501.1	0.0
	4:00:00 PM		1.00	5.0	31.9	0.42	75.9	0.0
	5:00:00 PM		1.00	15.0	95.7	0.42	227.8	0.0
	6:00:00 PM		1.00	33.0	210.5	0.42	501.1	0.0
	7:00:00 PM		1.00	34.0	216.8	0.42	516.3	0.0
	8:00:00 PM		1.00	21.0	133.9	0.42	318.9	0.0
<u>Edison</u>	<u>12 A/B</u>	<u>Total</u>	9.00	208.0	1,326.7	0.420	3,158.5	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>Load</i>						
<i>(hrs)</i>	<i>(MW)</i>						
Date: 7/15/2013							
Unit:	Edison	13 A/B	5001				
	12:00:00 PM	1.00	1.0	6.4	0.42	15.2	0.0
	1:00:00 PM	1.00	28.0	178.6	0.42	425.2	0.0
	2:00:00 PM	1.00	28.0	178.6	0.42	425.2	0.0
	3:00:00 PM	1.00	27.0	172.2	0.42	410.0	0.0
	4:00:00 PM	1.00	26.0	165.8	0.42	394.8	0.0
	5:00:00 PM	1.00	15.0	95.7	0.42	227.8	0.0
	6:00:00 PM	1.00	16.0	102.1	0.42	243.0	0.0
	7:00:00 PM	1.00	16.0	102.1	0.42	243.0	0.0
	8:00:00 PM	1.00	9.0	57.4	0.42	136.7	0.0
Edison	13 A/B	Total	9.00	166.0	1,058.9	0.420	2,520.9
Unit:	Edison	14 A/B	7001				
	1:00:00 PM	1.00	16.0	102.1	0.42	243.0	0.0
	2:00:00 PM	1.00	15.0	95.7	0.42	227.8	0.0
	3:00:00 PM	1.00	15.0	95.7	0.42	227.8	0.0
	4:00:00 PM	1.00	1.0	6.4	0.42	15.2	0.0
	5:00:00 PM	1.00	6.0	38.3	0.42	91.1	0.0
	6:00:00 PM	1.00	15.0	95.7	0.42	227.8	0.0
	7:00:00 PM	1.00	15.0	95.7	0.42	227.8	0.0
	8:00:00 PM	1.00	9.0	57.4	0.42	136.7	0.0
Edison	14 A/B	Total	8.00	92.0	587.0	0.420	1,397.2

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>Load</i>						
<i>(hrs)</i>	<i>(MW)</i>						
Date: 7/15/2013							
Unit:	Edison	21 A/B	9001				
	1:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	2:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	3:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	4:00:00 PM	1.00	5.0	31.9	0.42	75.9	0.0
	5:00:00 PM	1.00	17.0	108.4	0.42	258.2	0.0
	6:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	7:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	8:00:00 PM	1.00	27.0	172.2	0.42	410.0	0.0
Edison	21 A/B	Total	8.00	209.0	1,333.0	0.420	3,173.6
Unit:	Edison	22 A/B	11001				
	12:00:00 PM	1.00	1.0	6.4	0.42	15.2	0.0
	1:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	2:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	3:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	4:00:00 PM	1.00	6.0	38.3	0.42	91.1	0.0
	5:00:00 PM	1.00	17.0	108.4	0.42	258.2	0.0
	6:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	7:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	8:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	9:00:00 PM	1.00	8.0	51.0	0.42	121.5	0.0
Edison	22 A/B	Total	10.00	230.0	1,467.0	0.420	3,492.6

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>(hrs)</i>	<i>Load</i>	<i>(MW)</i>				
Date: 7/15/2013							
Unit:	Edison	23 A/B	13001				
	1:00:00 PM	1.00	35.0	223.2	0.42	531.5	0.0
	2:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	3:00:00 PM	1.00	35.0	223.2	0.42	531.5	0.0
	4:00:00 PM	1.00	6.0	38.3	0.42	91.1	0.0
	5:00:00 PM	1.00	15.0	95.7	0.42	227.8	0.0
	6:00:00 PM	1.00	35.0	223.2	0.42	531.5	0.0
	7:00:00 PM	1.00	35.0	223.2	0.42	531.5	0.0
	8:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	9:00:00 PM	1.00	8.0	51.0	0.42	121.5	0.0
Edison	23 A/B	Total	9.00	237.0	1,511.4	0.420	3,599.0
Unit:	Edison	24 A/B	15001				
	12:00:00 PM	1.00	1.0	6.4	0.42	15.2	0.0
	1:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	2:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	3:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	4:00:00 PM	1.00	7.0	44.6	0.42	106.3	0.0
	5:00:00 PM	1.00	18.0	114.8	0.42	273.3	0.0
	6:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	7:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	8:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	9:00:00 PM	1.00	8.0	51.0	0.42	121.5	0.0
Edison	24 A/B	Total	10.00	235.0	1,498.7	0.420	3,568.5

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
				<i>Load</i>			
				<i>(MW)</i>			
				<i>Run Time</i>			
				<i>(hrs)</i>			
Date: 7/15/2013							
Unit:	Edison	31 A/B	17001				
	1:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	2:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	3:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	4:00:00 PM	1.00	7.0	44.6	0.42	106.3	0.0
	5:00:00 PM	1.00	12.0	76.5	0.42	182.2	0.0
	6:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	7:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	8:00:00 PM	1.00	27.0	172.2	0.42	410.0	0.0
Edison	31 A/B	Total	8.00	207.0	1,320.2	0.420	3,143.2
Unit:	Edison	32 A/B	19001				
	1:00:00 PM	1.00	11.0	70.1	0.42	167.0	0.0
	2:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	3:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	4:00:00 PM	1.00	5.0	31.9	0.42	75.9	0.0
	5:00:00 PM	1.00	7.0	44.6	0.42	106.3	0.0
	6:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	7:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	8:00:00 PM	1.00	27.0	172.2	0.42	410.0	0.0
Edison	32 A/B	Total	8.00	178.0	1,135.2	0.420	2,702.8

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>(hrs)</i>	<i>Load</i>					
<i>(MW)</i>							
Date: 7/15/2013							
Unit:	Edison	33 A/B	21001				
	1:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	2:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	3:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	4:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	5:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	6:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	7:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	8:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	9:00:00 PM	1.00	15.0	95.7	0.42	227.8	0.0
Edison	33 A/B	Total	9.00	270.0	1,722.1	0.420	4,099.9
Unit:	Edison	34 A/B	23001				
	1:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	2:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	3:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	4:00:00 PM	1.00	7.0	44.6	0.42	106.3	0.0
	5:00:00 PM	1.00	3.0	19.2	0.42	45.6	0.0
	6:00:00 PM	1.00	15.0	95.7	0.42	227.8	0.0
	7:00:00 PM	1.00	15.0	95.7	0.42	227.8	0.0
	8:00:00 PM	1.00	13.0	82.9	0.42	197.4	0.0
Edison	34 A/B	Total	8.00	149.0	950.4	0.420	2,262.6

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
				<i>Load</i>			
				<i>(MW)</i>			
				<i>Run Time</i>			
				<i>(hrs)</i>			
Date: 7/15/2013							
Unit:	Essex	101 A/B	2001				
		1:00:00 PM	1.00	32.0	349.7	0.7	499.6
		2:00:00 PM	1.00	33.0	360.6	0.7	515.2
		3:00:00 PM	1.00	33.0	360.6	0.7	515.2
		4:00:00 PM	1.00	33.0	360.6	0.7	515.2
		5:00:00 PM	1.00	33.0	360.6	0.7	515.2
		6:00:00 PM	1.00	33.0	360.6	0.7	515.2
		7:00:00 PM	1.00	33.0	360.6	0.7	515.2
		8:00:00 PM	1.00	34.0	371.6	0.7	530.8
		9:00:00 PM	1.00	16.0	174.9	0.7	249.8
Essex	101 A/B	Total	9.00	280.0	3,059.8	0.700	4,371.4
Unit:	Essex	102 A/B	4001				
		1:00:00 PM	1.00	19.0	207.6	0.7	296.6
		2:00:00 PM	1.00	29.0	317.0	0.7	452.8
		3:00:00 PM	1.00	29.0	317.0	0.7	452.8
		4:00:00 PM	1.00	8.0	87.4	0.7	124.9
Essex	102 A/B	Total	4.00	85.0	929.0	0.700	1,327.1
Unit:	Essex	103 A/B	10001				
		1:00:00 PM	1.00	33.0	360.6	0.7	515.2
		2:00:00 PM	1.00	33.0	360.6	0.7	515.2
		3:00:00 PM	1.00	33.0	360.6	0.7	515.2
		4:00:00 PM	1.00	10.0	109.3	0.7	156.1
		5:00:00 PM	1.00	7.0	76.5	0.7	109.3
		6:00:00 PM	1.00	5.0	54.7	0.7	78.1
		7:00:00 PM	1.00	16.0	174.9	0.7	249.8
		8:00:00 PM	1.00	15.0	163.9	0.7	234.2
		9:00:00 PM	1.00	4.0	43.8	0.7	62.5
Essex	103 A/B	Total	9.00	156.0	1,704.9	0.700	2,435.6

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>	
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>		
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	<i>(MMBtu)</i>	
<i>Date: 7/15/2013</i>								
Unit:	Essex	104 A/B	12001					
		1:00:00 PM	1.00	32.0	349.7	0.7	499.6	0.0
		2:00:00 PM	1.00	17.0	185.8	0.7	265.4	0.0
		3:00:00 PM	1.00	32.0	349.7	0.7	499.6	0.0
		4:00:00 PM	1.00	31.0	338.8	0.7	484.0	0.0
		5:00:00 PM	1.00	32.0	349.7	0.7	499.6	0.0
		6:00:00 PM	1.00	32.0	349.7	0.7	499.6	0.0
		7:00:00 PM	1.00	32.0	349.7	0.7	499.6	0.0
		8:00:00 PM	1.00	32.0	349.7	0.7	499.6	0.0
		9:00:00 PM	1.00	19.0	207.6	0.7	296.6	0.0
Essex	104 A/B	Total	9.00	259.0	2,830.4	0.700	4,043.6	0.0
Unit:	Essex	9	35001					
		10:00:00 AM	0.03	0.0	0.1	0.06	2.3	0.0
		11:00:00 AM	0.75	43.0	26.8	0.076	351.8	0.0
		12:00:00 PM	1.00	72.0	53.0	0.077	688.4	0.0
		1:00:00 PM	0.15	53.0	3.4	0.11	30.9	0.0
		2:00:00 PM	1.00	70.0	49.7	0.074	672.0	0.0
		3:00:00 PM	0.27	72.0	14.0	0.076	184.9	0.0
		5:00:00 PM	0.87	69.0	40.1	0.078	513.8	0.0
		6:00:00 PM	0.57	72.0	30.4	0.077	394.4	0.0
Essex	9	Total	4.64	451.0	217.5	0.079	2,838.5	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time</i> <i>(hrs)</i>	<i>Load</i> <i>(MW)</i>	<i>NOx Emissions</i> <i>Mass</i> <i>(lbs)</i>	<i>NOx Emission</i> <i>Rate</i> <i>(lb/MMBtu)</i>	<i>Natural Gas</i> <i>Heat Input</i> <i>(MMBtu)</i>	<i>Oil Heat Input</i> <i>(MMBtu)</i>
Date: 7/15/2013								
Unit:	Kearny	121	121					
	7:00:00 AM	0.07	1.0	1.7	0.262	6.3	0.0	
	8:00:00 AM	1.00	42.0	36.8	0.094	391.2	0.0	
	9:00:00 AM	1.00	43.0	35.8	0.09	397.8	0.0	
	10:00:00 AM	1.00	43.0	35.9	0.091	394.8	0.0	
	11:00:00 AM	1.00	43.0	34.8	0.088	395.9	0.0	
	12:00:00 PM	1.00	43.0	35.8	0.091	393.9	0.0	
	1:00:00 PM	1.00	43.0	36.0	0.092	390.9	0.0	
	2:00:00 PM	1.00	42.0	36.0	0.093	387.2	0.0	
	3:00:00 PM	1.00	42.0	36.4	0.095	383.4	0.0	
	4:00:00 PM	1.00	43.0	34.5	0.089	387.9	0.0	
	5:00:00 PM	1.00	43.0	32.4	0.083	390.9	0.0	
	6:00:00 PM	1.00	43.0	32.1	0.082	391.7	0.0	
	7:00:00 PM	1.00	44.0	30.4	0.077	395.0	0.0	
	8:00:00 PM	0.93	39.0	30.2	0.09	335.6	0.0	
Kearny	121	Total	13.00	554.0	448.8	0.101	5,042.6	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time</i> <i>(hrs)</i>	<i>Load</i> <i>(MW)</i>	<i>NOx Emissions</i> <i>Mass</i> <i>(lbs)</i>	<i>NOx Emission</i> <i>Rate</i> <i>(lb/MMBtu)</i>	<i>Natural Gas</i> <i>Heat Input</i> <i>(MMBtu)</i>	<i>Oil Heat Input</i> <i>(MMBtu)</i>
Date: 7/15/2013								
Unit:	Kearny	122	122					
	7:00:00 AM	0.07	1.0	1.1	0.179	6.3	0.0	
	8:00:00 AM	1.00	44.0	35.6	0.081	439.6	0.0	
	9:00:00 AM	1.00	44.0	34.8	0.078	445.6	0.0	
	10:00:00 AM	1.00	44.0	34.7	0.078	445.3	0.0	
	11:00:00 AM	1.00	44.0	35.9	0.081	443.3	0.0	
	12:00:00 PM	1.00	44.0	36.4	0.082	444.0	0.0	
	1:00:00 PM	1.00	44.0	34.8	0.079	440.7	0.0	
	2:00:00 PM	1.00	43.0	34.0	0.078	435.8	0.0	
	3:00:00 PM	1.00	43.0	34.4	0.079	434.9	0.0	
	4:00:00 PM	1.00	43.0	35.6	0.082	433.8	0.0	
	5:00:00 PM	1.00	43.0	35.6	0.082	434.6	0.0	
	6:00:00 PM	1.00	44.0	35.5	0.081	438.1	0.0	
	7:00:00 PM	1.00	44.0	34.6	0.079	437.5	0.0	
	8:00:00 PM	0.93	39.0	32.8	0.088	373.6	0.0	
Kearny	122	Total	13.00	564.0	455.9	0.088	5,653.1	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time</i> <i>(hrs)</i>	<i>Load</i> <i>(MW)</i>	<i>NOx Emissions</i> <i>Mass</i> <i>(lbs)</i>	<i>NOx Emission</i> <i>Rate</i> <i>(lb/MMBtu)</i>	<i>Natural Gas</i> <i>Heat Input</i> <i>(MMBtu)</i>	<i>Oil Heat Input</i> <i>(MMBtu)</i>
Date: 7/15/2013								
Unit:	Kearny	123	123					
	7:00:00 AM	0.05	1.0	1.2	0.201	5.9	0.0	
	8:00:00 AM	1.00	37.0	30.4	0.076	400.3	0.0	
	9:00:00 AM	1.00	37.0	32.3	0.08	404.3	0.0	
	10:00:00 AM	1.00	37.0	32.2	0.08	402.9	0.0	
	11:00:00 AM	1.00	37.0	33.4	0.083	402.7	0.0	
	12:00:00 PM	1.00	37.0	34.3	0.085	403.3	0.0	
	1:00:00 PM	1.00	37.0	32.4	0.081	399.6	0.0	
	2:00:00 PM	1.00	37.0	33.2	0.083	399.9	0.0	
	3:00:00 PM	1.00	37.0	34.1	0.085	401.0	0.0	
	4:00:00 PM	1.00	38.0	33.2	0.082	405.4	0.0	
	5:00:00 PM	1.00	38.0	31.6	0.078	405.1	0.0	
	6:00:00 PM	1.00	37.0	29.0	0.072	402.3	0.0	
	7:00:00 PM	1.00	37.0	28.5	0.071	401.5	0.0	
	8:00:00 PM	0.93	33.0	27.2	0.078	348.1	0.0	
Kearny	123	Total	12.98	480.0	412.9	0.088	5,182.3	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time</i> <i>(hrs)</i>	<i>Load</i> <i>(MW)</i>	<i>NOx Emissions</i> <i>Mass</i> <i>(lbs)</i>	<i>NOx Emission</i> <i>Rate</i> <i>(lb/MMBtu)</i>	<i>Natural Gas</i> <i>Heat Input</i> <i>(MMBtu)</i>	<i>Oil Heat Input</i> <i>(MMBtu)</i>
Date: 7/15/2013								
Unit:	Kearny	124	124					
	8:00:00 AM	0.05	0.0	0.9	0.194	4.8	0.0	
	9:00:00 AM	1.00	43.0	32.1	0.082	391.0	0.0	
	10:00:00 AM	1.00	43.0	32.9	0.083	396.3	0.0	
	11:00:00 AM	1.00	43.0	33.1	0.084	393.9	0.0	
	12:00:00 PM	1.00	43.0	33.3	0.085	391.6	0.0	
	1:00:00 PM	1.00	42.0	33.4	0.086	388.5	0.0	
	2:00:00 PM	1.00	42.0	32.1	0.082	391.0	0.0	
	3:00:00 PM	1.00	42.0	32.2	0.083	388.3	0.0	
	4:00:00 PM	1.00	42.0	32.4	0.084	385.6	0.0	
	5:00:00 PM	1.00	42.0	31.6	0.082	385.7	0.0	
	6:00:00 PM	1.00	43.0	30.9	0.079	390.7	0.0	
	7:00:00 PM	1.00	43.0	30.5	0.077	396.4	0.0	
	8:00:00 PM	1.00	44.0	29.8	0.075	397.7	0.0	
	9:00:00 PM	0.93	39.0	28.8	0.085	339.4	0.0	
Kearny	124	Total	12.98	551.0	414.1	0.090	5,040.9	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>Load</i>						
<i>(hrs)</i>	<i>(MW)</i>						
Date: 7/15/2013							
Unit:	Linden	5	5				
	9:00:00 AM	0.67	57.0	26.7	0.06	445.9	0.0
	10:00:00 AM	1.00	75.0	24.5	0.03	817.4	0.0
	11:00:00 AM	1.00	74.0	24.5	0.03	816.1	0.0
	12:00:00 PM	1.00	75.0	24.6	0.03	818.4	0.0
	1:00:00 PM	1.00	74.0	24.4	0.03	813.9	0.0
	2:00:00 PM	1.00	74.0	24.4	0.03	813.6	0.0
	3:00:00 PM	1.00	74.0	24.4	0.03	812.8	0.0
	4:00:00 PM	1.00	74.0	24.4	0.03	812.5	0.0
	5:00:00 PM	1.00	75.0	25.3	0.031	816.7	0.0
	6:00:00 PM	1.00	74.0	25.2	0.031	813.3	0.0
	7:00:00 PM	1.00	74.0	24.5	0.03	815.2	0.0
	8:00:00 PM	1.00	74.0	24.5	0.03	816.2	0.0
	9:00:00 PM	0.45	44.0	13.9	0.057	243.8	0.0
<u>Linden</u>	<u>5</u>	<u>Total</u>	12.12	918.0	311.3	9,655.8	0.0
Unit:	Linden	6	6				
	9:00:00 AM	0.68	56.0	30.6	0.061	501.4	0.0
	10:00:00 AM	1.00	76.0	27.2	0.029	938.0	0.0
	11:00:00 AM	1.00	76.0	27.2	0.029	938.3	0.0
	12:00:00 PM	1.00	76.0	26.1	0.028	933.5	0.0
	1:00:00 PM	1.00	76.0	27.1	0.029	932.8	0.0
	2:00:00 PM	1.00	76.0	27.1	0.029	933.8	0.0
	3:00:00 PM	1.00	76.0	27.0	0.029	929.8	0.0
	4:00:00 PM	1.00	76.0	28.0	0.03	932.1	0.0
	5:00:00 PM	1.00	76.0	28.1	0.03	935.6	0.0
	6:00:00 PM	1.00	76.0	28.1	0.03	936.1	0.0
	7:00:00 PM	1.00	76.0	28.0	0.03	934.9	0.0
	8:00:00 PM	1.00	76.0	28.0	0.03	934.0	0.0
	9:00:00 PM	0.48	42.0	18.2	0.065	280.1	0.0
<u>Linden</u>	<u>6</u>	<u>Total</u>	12.16	934.0	350.7	11,060.4	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>Load</i>						
<i>(hrs)</i>	<i>(MW)</i>						
Date: 7/15/2013							
Unit:	Linden	7	7				
	9:00:00 AM	0.68	51.0	31.1	0.066	472.1	0.0
	10:00:00 AM	1.00	72.0	27.5	0.031	886.3	0.0
	11:00:00 AM	1.00	72.0	27.5	0.031	886.1	0.0
	12:00:00 PM	1.00	72.0	26.5	0.03	884.4	0.0
	1:00:00 PM	1.00	71.0	26.5	0.03	882.2	0.0
	2:00:00 PM	1.00	72.0	27.4	0.031	884.0	0.0
	3:00:00 PM	1.00	72.0	26.4	0.03	878.8	0.0
	4:00:00 PM	1.00	71.0	27.2	0.031	878.7	0.0
	5:00:00 PM	1.00	72.0	27.4	0.031	883.3	0.0
	6:00:00 PM	1.00	72.0	27.5	0.031	885.5	0.0
	7:00:00 PM	1.00	71.0	27.5	0.031	887.4	0.0
	8:00:00 PM	1.00	71.0	27.6	0.031	890.7	0.0
	9:00:00 PM	0.37	50.0	18.4	0.073	251.9	0.0
<u>Linden</u>	<u>7</u>	<u>Total</u>	12.05	889.0	348.5	10,451.4	0.0
Unit:	Linden	8	8				
	9:00:00 AM	0.17	4.0	3.7	0.103	36.3	0.0
	10:00:00 AM	1.00	68.0	33.2	0.043	772.2	0.0
	11:00:00 AM	1.00	70.0	23.7	0.03	790.4	0.0
	12:00:00 PM	1.00	70.0	23.6	0.03	785.4	0.0
	1:00:00 PM	1.00	69.0	23.5	0.03	782.2	0.0
	2:00:00 PM	1.00	69.0	24.2	0.031	779.4	0.0
	3:00:00 PM	1.00	69.0	24.0	0.031	773.4	0.0
	4:00:00 PM	1.00	69.0	24.0	0.031	775.0	0.0
	5:00:00 PM	1.00	69.0	24.1	0.031	776.2	0.0
	6:00:00 PM	1.00	70.0	24.2	0.031	780.8	0.0
	7:00:00 PM	1.00	70.0	24.4	0.031	785.6	0.0
	8:00:00 PM	1.00	70.0	24.4	0.031	786.7	0.0
	9:00:00 PM	0.35	50.0	14.4	0.067	215.0	0.0
<u>Linden</u>	<u>8</u>	<u>Total</u>	11.52	817.0	291.5	8,838.6	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
				<i>Run Time</i>	<i>Load</i>		
				<i>(hrs)</i>	<i>(MW)</i>		
Date: 7/15/2013							
Unit:	Salem	3	2001				
	2:00:00 PM	1.00	22.0	390.5	1.2	0.0	325.4
	3:00:00 PM	1.00	32.0	568.0	1.2	0.0	473.3
	4:00:00 PM	1.00	32.0	568.0	1.2	0.0	473.3
	5:00:00 PM	1.00	32.0	568.0	1.2	0.0	473.3
	6:00:00 PM	1.00	23.0	408.2	1.2	0.0	340.2
<u>Salem</u>	<u>3</u>	<u>Total</u>	5.00	141.0	2,502.7	1.200	2,085.5

* Only hours in which a unit operated are listed.

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			<i>Run Time</i> <i>(hrs)</i>	<i>Load</i> <i>(MW)</i>	<i>NOx Emissions</i> <i>Mass</i> <i>(lbs)</i>	<i>NOx Emission</i> <i>Rate</i> <i>(lb/MMBtu)</i>	<i>Natural Gas</i> <i>Heat Input</i> <i>(MMBtu)</i>	<i>Oil Heat Input</i> <i>(MMBtu)</i>
<i>Date: 7/15/2013</i>								
Unit:	Sewaren	1	1					
	12:00:00 AM	1.00	0.0	2.8	0.046	61.6	0.0	
	1:00:00 AM	1.00	0.0	2.6	0.046	56.6	0.0	
	2:00:00 AM	1.00	0.0	3.0	0.046	64.8	0.0	
	3:00:00 AM	1.00	0.0	3.1	0.046	68.2	0.0	
	4:00:00 AM	1.00	0.0	2.3	0.046	50.8	0.0	
	5:00:00 AM	1.00	0.0	2.3	0.046	49.4	0.0	
	6:00:00 AM	1.00	7.0	7.9	0.046	170.8	0.0	
	7:00:00 AM	1.00	30.0	20.0	0.049	408.9	0.0	
	8:00:00 AM	1.00	53.0	36.6	0.059	621.1	0.0	
	9:00:00 AM	1.00	53.0	35.4	0.058	609.6	0.0	
	10:00:00 AM	1.00	53.0	35.6	0.058	613.9	0.0	
	11:00:00 AM	1.00	54.0	35.5	0.058	612.4	0.0	
	12:00:00 PM	1.00	54.0	35.4	0.058	609.6	0.0	
	1:00:00 PM	1.00	54.0	35.4	0.058	609.9	0.0	
	2:00:00 PM	1.00	54.0	35.2	0.058	606.1	0.0	
	3:00:00 PM	1.00	52.0	33.5	0.057	587.0	0.0	
	4:00:00 PM	1.00	54.0	35.7	0.058	615.9	0.0	
	5:00:00 PM	1.00	54.0	35.4	0.058	609.8	0.0	
	6:00:00 PM	1.00	50.0	33.0	0.057	578.5	0.0	
	7:00:00 PM	1.00	53.0	35.2	0.058	607.4	0.0	
	8:00:00 PM	1.00	54.0	35.6	0.058	613.9	0.0	
	9:00:00 PM	1.00	40.0	25.9	0.053	488.0	0.0	
	10:00:00 PM	1.00	38.0	24.7	0.052	475.9	0.0	
	11:00:00 PM	1.00	26.0	16.9	0.047	359.8	0.0	
Sewaren	1	Total	24.00	833.0	569.0	0.053	10,149.9	0.0
7/15/2013	Total	356.43	12,927.0	38,715.2	0.302	139,166.8	13,005.4	

Date: 7/16/2013

* Only hours in which a unit operated are listed.

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			<i>Run Time (hrs)</i>	<i>Load (MW)</i>	<i>NOx Emissions Mass (lbs)</i>	<i>NOx Emission Rate (lb/MMBtu)</i>	<i>Natural Gas Heat Input (MMBtu)</i>	<i>Oil Heat Input (MMBtu)</i>
Date: 7/16/2013								
Unit:	Burlington	121	121					
	8:00:00 AM		0.13	0.0	2.5	0.192	12.8	0.0
<u>Burlington</u>	<u>121</u>	<u>Total</u>	0.13	0.0	2.5	0.192	12.8	0.0
Unit:	Burlington	122	122					
	8:00:00 AM		0.13	0.0	3.0	0.232	12.9	0.0
<u>Burlington</u>	<u>122</u>	<u>Total</u>	0.13	0.0	3.0	0.232	12.9	0.0
Unit:	Burlington	123	123					
	8:00:00 AM		0.12	0.0	3.4	0.269	12.6	0.0
<u>Burlington</u>	<u>123</u>	<u>Total</u>	0.12	0.0	3.4	0.269	12.6	0.0
Unit:	Burlington	124	124					
	11:00:00 AM		0.15	0.0	3.3	0.235	14.1	0.0
<u>Burlington</u>	<u>124</u>	<u>Total</u>	0.15	0.0	3.3	0.235	14.1	0.0
Unit:	Edison	11 A/B	1001					
	12:00:00 PM		1.00	13.0	82.9	0.42	197.4	0.0
	1:00:00 PM		1.00	33.0	210.5	0.42	501.1	0.0
	2:00:00 PM		1.00	33.0	210.5	0.42	501.1	0.0
	3:00:00 PM		1.00	33.0	210.5	0.42	501.1	0.0
	4:00:00 PM		1.00	33.0	210.5	0.42	501.1	0.0
	5:00:00 PM		1.00	33.0	210.5	0.42	501.1	0.0
	6:00:00 PM		1.00	26.0	165.8	0.42	394.8	0.0
<u>Edison</u>	<u>11 A/B</u>	<u>Total</u>	7.00	204.0	1,301.2	0.420	3,097.7	0.0
Unit:	Edison	12 A/B	3001					
	12:00:00 PM		1.00	13.0	82.9	0.42	197.4	0.0
	1:00:00 PM		1.00	34.0	216.8	0.42	516.3	0.0
	2:00:00 PM		1.00	34.0	216.8	0.42	516.3	0.0
	3:00:00 PM		1.00	34.0	216.8	0.42	516.3	0.0
	4:00:00 PM		1.00	34.0	216.8	0.42	516.3	0.0
	5:00:00 PM		1.00	34.0	216.8	0.42	516.3	0.0
	6:00:00 PM		1.00	27.0	172.2	0.42	410.0	0.0
<u>Edison</u>	<u>12 A/B</u>	<u>Total</u>	7.00	210.0	1,339.1	0.420	3,188.9	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>Load</i>						
<i>(hrs)</i>	<i>(MW)</i>						
Date: 7/16/2013							
Unit:	Edison	13 A/B	5001				
	12:00:00 PM	1.00	11.0	70.1	0.42	167.0	0.0
	1:00:00 PM	1.00	28.0	178.6	0.42	425.2	0.0
	2:00:00 PM	1.00	28.0	178.6	0.42	425.2	0.0
	3:00:00 PM	1.00	28.0	178.6	0.42	425.2	0.0
	4:00:00 PM	1.00	28.0	178.6	0.42	425.2	0.0
	5:00:00 PM	1.00	28.0	178.6	0.42	425.2	0.0
	6:00:00 PM	1.00	22.0	140.3	0.42	334.1	0.0
Edison	13 A/B	Total	7.00	173.0	1,103.4	0.420	2,627.1
Unit:	Edison	14 A/B	7001				
	12:00:00 PM	1.00	6.0	38.3	0.42	91.1	0.0
	1:00:00 PM	1.00	15.0	95.7	0.42	227.8	0.0
	2:00:00 PM	1.00	15.0	95.7	0.42	227.8	0.0
	3:00:00 PM	1.00	15.0	95.7	0.42	227.8	0.0
	4:00:00 PM	1.00	15.0	95.7	0.42	227.8	0.0
	5:00:00 PM	1.00	16.0	102.1	0.42	243.0	0.0
	6:00:00 PM	1.00	12.0	76.5	0.42	182.2	0.0
Edison	14 A/B	Total	7.00	94.0	599.7	0.420	1,427.5
Unit:	Edison	21 A/B	9001				
	12:00:00 PM	1.00	12.0	76.5	0.42	182.2	0.0
	1:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	2:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	3:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	4:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	5:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	6:00:00 PM	1.00	27.0	172.2	0.42	410.0	0.0
Edison	21 A/B	Total	7.00	195.0	1,243.6	0.420	2,961.3

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
	<i>Run Time</i>	<i>Load</i>					
	<i>(hrs)</i>	<i>(MW)</i>					
Date: 7/16/2013							
Unit:	Edison	22 A/B	11001				
	12:00:00 PM	1.00	14.0	89.3	0.42	212.6	0.0
	1:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	2:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	3:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	4:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	5:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	6:00:00 PM	1.00	29.0	185.0	0.42	440.4	0.0
Edison	22 A/B	Total	7.00	206.0	1,314.0	0.420	3,128.1
Unit:	Edison	23 A/B	13001				
	12:00:00 PM	1.00	13.0	82.9	0.42	197.4	0.0
	1:00:00 PM	1.00	35.0	223.2	0.42	531.5	0.0
	2:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	3:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	4:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	5:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	6:00:00 PM	1.00	30.0	191.4	0.42	455.6	0.0
Edison	23 A/B	Total	7.00	214.0	1,364.7	0.420	3,249.7
Unit:	Edison	24 A/B	15001				
	12:00:00 PM	1.00	14.0	89.3	0.42	212.6	0.0
	1:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	2:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	3:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	4:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	5:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	6:00:00 PM	1.00	30.0	191.4	0.42	455.6	0.0
Edison	24 A/B	Total	7.00	209.0	1,333.2	0.420	3,173.7

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
				<i>Run Time</i>	<i>Load</i>		
				<i>(hrs)</i>	<i>(MW)</i>		
Date: 7/16/2013							
Unit:	Edison	31 A/B	17001				
	12:00:00 PM	1.00	12.0	76.5	0.42	182.2	0.0
	1:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	2:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	3:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	4:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	5:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	6:00:00 PM	1.00	23.0	146.7	0.42	349.3	0.0
Edison	31 A/B	Total	7.00	196.0	1,250.1	0.420	2,976.2
Unit:	Edison	32 A/B	19001				
	12:00:00 PM	1.00	13.0	82.9	0.42	197.4	0.0
	1:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	2:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	3:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	4:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	5:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	6:00:00 PM	1.00	22.0	140.3	0.42	334.1	0.0
Edison	32 A/B	Total	7.00	194.0	1,237.3	0.420	2,945.9
Unit:	Edison	33 A/B	21001				
	12:00:00 PM	1.00	13.0	82.9	0.42	197.4	0.0
	1:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	2:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	3:00:00 PM	1.00	30.0	191.4	0.42	455.6	0.0
	4:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	5:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	6:00:00 PM	1.00	21.0	133.9	0.42	318.9	0.0
Edison	33 A/B	Total	7.00	188.0	1,199.0	0.420	2,855.1

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
				<i>Run Time</i>	<i>Load</i>		
				<i>(hrs)</i>	<i>(MW)</i>		
Date: 7/16/2013							
Unit:	Edison	34 A/B	23001				
	12:00:00 PM	1.00	13.0	82.9	0.42	197.4	0.0
	1:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	2:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	3:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	4:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	5:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	6:00:00 PM	1.00	22.0	140.3	0.42	334.1	0.0
Edison	34 A/B	Total	7.00	195.0	1,243.7	0.420	2,961.0
Unit:	Essex	101 A/B	2001				
	12:00:00 PM	1.00	29.0	317.0	0.7	452.8	0.0
	1:00:00 PM	1.00	33.0	360.6	0.7	515.2	0.0
	2:00:00 PM	1.00	33.0	360.6	0.7	515.2	0.0
	3:00:00 PM	1.00	33.0	360.6	0.7	515.2	0.0
	4:00:00 PM	1.00	33.0	360.6	0.7	515.2	0.0
	5:00:00 PM	1.00	33.0	360.6	0.7	515.2	0.0
	6:00:00 PM	1.00	33.0	360.6	0.7	515.2	0.0
	7:00:00 PM	1.00	8.0	87.4	0.7	124.9	0.0
Essex	101 A/B	Total	8.00	235.0	2,568.0	0.700	3,668.9
Unit:	Essex	102 A/B	4001				
	12:00:00 PM	1.00	27.0	295.1	0.7	421.6	0.0
	1:00:00 PM	1.00	28.0	306.0	0.7	437.2	0.0
	2:00:00 PM	1.00	29.0	317.0	0.7	452.8	0.0
	3:00:00 PM	1.00	28.0	306.0	0.7	437.2	0.0
	4:00:00 PM	1.00	29.0	317.0	0.7	452.8	0.0
	5:00:00 PM	1.00	28.0	306.0	0.7	437.2	0.0
	6:00:00 PM	1.00	29.0	317.0	0.7	452.8	0.0
	7:00:00 PM	1.00	9.0	98.4	0.7	140.5	0.0
Essex	102 A/B	Total	8.00	207.0	2,262.5	0.700	3,232.1

* Only hours in which a unit operated are listed.

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				NOx Emissions	NOx Emission	Natural Gas	Oil Heat Input	
				Mass	Rate	Heat Input		
				(lbs)	(lb/MMBtu)	(MMBtu)	(MMBtu)	
				Load				
				(MW)				
				Run Time				
				(hrs)				
Date: 7/16/2013								
Unit:	Essex	103 A/B	10001					
		12:00:00 PM	1.00	27.0	295.1	0.7	421.6	0.0
		1:00:00 PM	1.00	22.0	240.5	0.7	343.5	0.0
		2:00:00 PM	1.00	31.0	338.8	0.7	484.0	0.0
		3:00:00 PM	1.00	30.0	327.9	0.7	468.4	0.0
		4:00:00 PM	1.00	30.0	327.9	0.7	468.4	0.0
		5:00:00 PM	1.00	31.0	338.8	0.7	484.0	0.0
		6:00:00 PM	1.00	8.0	87.4	0.7	124.9	0.0
Essex	103 A/B	Total	7.00	179.0	1,956.4	0.700	2,794.8	0.0
Unit:	Essex	104 A/B	12001					
		12:00:00 PM	1.00	22.0	240.5	0.7	343.5	0.0
		1:00:00 PM	1.00	32.0	349.7	0.7	499.6	0.0
		2:00:00 PM	1.00	32.0	349.7	0.7	499.6	0.0
		3:00:00 PM	1.00	32.0	349.7	0.7	499.6	0.0
		4:00:00 PM	1.00	32.0	349.7	0.7	499.6	0.0
		5:00:00 PM	1.00	32.0	349.7	0.7	499.6	0.0
		6:00:00 PM	1.00	32.0	349.7	0.7	499.6	0.0
		7:00:00 PM	1.00	8.0	87.4	0.7	124.9	0.0
Essex	104 A/B	Total	8.00	222.0	2,426.1	0.700	3,466.0	0.0
Unit:	Essex	9	35001					
		9:00:00 AM	0.75	67.0	33.8	0.079	427.4	0.0
		10:00:00 AM	1.00	73.0	53.7	0.076	707.2	0.0
		11:00:00 AM	1.00	73.0	54.0	0.077	701.9	0.0
		12:00:00 PM	1.00	73.0	53.2	0.076	699.8	0.0
		1:00:00 PM	1.00	73.0	53.1	0.076	698.1	0.0
		2:00:00 PM	1.00	73.0	52.4	0.075	698.8	0.0
		3:00:00 PM	1.00	73.0	51.7	0.074	698.6	0.0
		4:00:00 PM	0.70	73.0	35.8	0.073	490.2	0.0
Essex	9	Total	7.45	578.0	387.6	0.076	5,122.0	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time</i> <i>(hrs)</i>	<i>Load</i> <i>(MW)</i>	<i>NOx Emissions</i> <i>Mass</i> <i>(lbs)</i>	<i>NOx Emission</i> <i>Rate</i> <i>(lb/MMBtu)</i>	<i>Natural Gas</i> <i>Heat Input</i> <i>(MMBtu)</i>	<i>Oil Heat Input</i> <i>(MMBtu)</i>
Date: 7/16/2013								
Unit:	Kearny	121	121					
	7:00:00 AM	0.30	31.0	11.5	0.125	92.0	0.0	
	8:00:00 AM	0.15	37.0	10.5	0.263	40.0	0.0	
	9:00:00 AM	0.88	39.0	30.8	0.096	321.3	0.0	
	10:00:00 AM	1.00	44.0	36.0	0.091	395.5	0.0	
	11:00:00 AM	1.00	43.0	36.2	0.092	393.2	0.0	
	12:00:00 PM	1.00	43.0	36.1	0.092	392.0	0.0	
	1:00:00 PM	1.00	43.0	34.1	0.086	397.0	0.0	
	2:00:00 PM	1.00	43.0	35.9	0.092	389.8	0.0	
	3:00:00 PM	1.00	43.0	35.6	0.092	387.1	0.0	
	4:00:00 PM	1.00	43.0	35.1	0.09	390.3	0.0	
	5:00:00 PM	1.00	44.0	34.9	0.089	392.0	0.0	
	6:00:00 PM	0.80	38.0	28.2	0.099	285.3	0.0	
	10:00:00 PM	0.73	38.0	26.3	0.104	252.9	0.0	
	11:00:00 PM	1.00	43.0	34.0	0.089	381.9	0.0	
Kearny	121	Total	11.86	572.0	425.3	0.107	4,510.3	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time</i> <i>(hrs)</i>	<i>Load</i> <i>(MW)</i>	<i>NOx Emissions</i> <i>Mass</i> <i>(lbs)</i>	<i>NOx Emission</i> <i>Rate</i> <i>(lb/MMBtu)</i>	<i>Natural Gas</i> <i>Heat Input</i> <i>(MMBtu)</i>	<i>Oil Heat Input</i> <i>(MMBtu)</i>
<i>Date: 7/16/2013</i>								
Unit:	Kearny	122	122					
	7:00:00 AM	0.30	32.0	11.0	0.108	101.8	0.0	
	8:00:00 AM	1.00	45.0	37.5	0.083	451.4	0.0	
	9:00:00 AM	1.00	44.0	35.8	0.081	441.6	0.0	
	10:00:00 AM	1.00	43.0	35.9	0.082	437.8	0.0	
	11:00:00 AM	1.00	43.0	35.4	0.081	437.5	0.0	
	12:00:00 PM	1.00	43.0	35.4	0.081	436.7	0.0	
	1:00:00 PM	1.00	43.0	34.8	0.08	435.4	0.0	
	2:00:00 PM	1.00	43.0	34.9	0.08	436.0	0.0	
	3:00:00 PM	1.00	43.0	34.7	0.08	433.4	0.0	
	4:00:00 PM	1.00	43.0	34.7	0.08	433.3	0.0	
	5:00:00 PM	1.00	43.0	35.3	0.081	435.3	0.0	
	6:00:00 PM	0.80	38.0	27.9	0.088	317.4	0.0	
	10:00:00 PM	0.68	38.0	24.3	0.09	270.1	0.0	
	11:00:00 PM	1.00	43.0	34.4	0.08	430.4	0.0	
Kearny	122	Total	12.78	584.0	452.0	0.084	5,498.2	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time</i> <i>(hrs)</i>	<i>Load</i> <i>(MW)</i>	<i>NOx Emissions</i> <i>Mass</i> <i>(lbs)</i>	<i>NOx Emission</i> <i>Rate</i> <i>(lb/MMBtu)</i>	<i>Natural Gas</i> <i>Heat Input</i> <i>(MMBtu)</i>	<i>Oil Heat Input</i> <i>(MMBtu)</i>
Date: 7/16/2013								
Unit:	Kearny	123	123					
	7:00:00 AM	0.30	29.0	9.4	0.093	100.5	0.0	
	8:00:00 AM	1.00	38.0	32.4	0.079	409.9	0.0	
	9:00:00 AM	1.00	39.0	33.8	0.082	412.5	0.0	
	10:00:00 AM	1.00	38.0	33.8	0.082	412.2	0.0	
	11:00:00 AM	1.00	38.0	34.2	0.083	412.1	0.0	
	12:00:00 PM	1.00	39.0	34.8	0.084	414.1	0.0	
	1:00:00 PM	1.00	38.0	33.3	0.081	410.8	0.0	
	2:00:00 PM	1.00	38.0	32.8	0.08	410.0	0.0	
	3:00:00 PM	1.00	38.0	32.3	0.079	409.0	0.0	
	4:00:00 PM	1.00	38.0	32.3	0.079	408.9	0.0	
	5:00:00 PM	1.00	38.0	32.4	0.079	410.4	0.0	
	6:00:00 PM	0.82	33.0	27.2	0.089	306.2	0.0	
	10:00:00 PM	0.68	34.0	19.0	0.074	257.0	0.0	
	11:00:00 PM	1.00	37.0	28.0	0.069	405.5	0.0	
Kearny	123	Total	12.80	515.0	415.7	0.081	5,179.1	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
				<i>Run Time</i>	<i>Load</i>		
				<i>(hrs)</i>	<i>(MW)</i>		
Date: 7/16/2013							
Unit:	Kearny	124	124				
	8:00:00 AM	0.28	34.0	8.9	0.097	91.9	0.0
	9:00:00 AM	1.00	44.0	33.1	0.083	398.5	0.0
	10:00:00 AM	1.00	43.0	32.9	0.083	396.9	0.0
	11:00:00 AM	1.00	43.0	32.7	0.083	394.0	0.0
	12:00:00 PM	1.00	43.0	33.0	0.084	392.3	0.0
	1:00:00 PM	1.00	42.0	33.2	0.085	390.4	0.0
	2:00:00 PM	1.00	42.0	32.8	0.084	390.5	0.0
	3:00:00 PM	1.00	42.0	32.4	0.083	390.6	0.0
	4:00:00 PM	1.00	43.0	32.3	0.082	393.6	0.0
	5:00:00 PM	1.00	43.0	31.9	0.081	394.2	0.0
	6:00:00 PM	1.00	43.0	32.5	0.082	396.5	0.0
	7:00:00 PM	0.82	38.0	27.1	0.091	297.0	0.0
	11:00:00 PM	0.68	39.0	21.1	0.085	248.3	0.0
Kearny	124	Total	11.78	539.0	383.8	0.085	4,574.8
Unit:	Linden	5	5				
	9:00:00 AM	0.63	56.0	28.4	0.069	411.5	0.0
	10:00:00 AM	1.00	75.0	27.9	0.034	819.6	0.0
	11:00:00 AM	1.00	75.0	28.0	0.034	822.6	0.0
	12:00:00 PM	1.00	75.0	28.7	0.035	820.3	0.0
	1:00:00 PM	1.00	75.0	27.9	0.034	820.8	0.0
	2:00:00 PM	1.00	75.0	27.9	0.034	819.9	0.0
	3:00:00 PM	1.00	75.0	27.9	0.034	820.4	0.0
	4:00:00 PM	1.00	75.0	28.7	0.035	821.1	0.0
	5:00:00 PM	1.00	75.0	28.7	0.035	819.6	0.0
	6:00:00 PM	0.80	57.0	32.6	0.062	525.4	0.0
Linden	5	Total	9.43	713.0	286.7	0.041	7,501.2

* Only hours in which a unit operated are listed.

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			<i>Run Time (hrs)</i>	<i>Load (MW)</i>	<i>NOx Emissions Mass (lbs)</i>	<i>NOx Emission Rate (lb/MMBtu)</i>	<i>Natural Gas Heat Input (MMBtu)</i>	<i>Oil Heat Input (MMBtu)</i>
Date: 7/16/2013								
Unit:	Linden	6	6					
		9:00:00 AM	0.65	54.0	31.7	0.068	466.1	0.0
		10:00:00 AM	1.00	77.0	29.2	0.031	940.6	0.0
		11:00:00 AM	1.00	77.0	28.1	0.03	938.1	0.0
		12:00:00 PM	1.00	77.0	28.1	0.03	936.8	0.0
		1:00:00 PM	1.00	77.0	28.1	0.03	938.0	0.0
		2:00:00 PM	1.00	77.0	29.0	0.031	933.9	0.0
		3:00:00 PM	1.00	77.0	28.9	0.031	933.8	0.0
		4:00:00 PM	1.00	77.0	29.0	0.031	934.5	0.0
		5:00:00 PM	1.00	76.0	27.9	0.03	930.0	0.0
		6:00:00 PM	0.83	56.0	29.6	0.049	604.1	0.0
<u>Linden</u>	<u>6</u>	<u>Total</u>	9.48	725.0	289.7	0.036	8,555.9	0.0
Unit:	Linden	7	7					
		9:00:00 AM	0.65	49.0	31.7	0.072	439.5	0.0
		10:00:00 AM	1.00	72.0	27.9	0.031	898.5	0.0
		11:00:00 AM	1.00	72.0	27.8	0.031	895.9	0.0
		12:00:00 PM	1.00	72.0	27.9	0.031	899.4	0.0
		1:00:00 PM	0.97	72.0	28.3	0.032	885.5	0.0
		2:00:00 PM	0.95	72.0	27.6	0.032	863.8	0.0
		3:00:00 PM	1.00	72.0	29.0	0.032	904.8	0.0
		4:00:00 PM	1.00	72.0	28.9	0.032	902.1	0.0
		5:00:00 PM	1.00	71.0	27.9	0.031	899.4	0.0
		6:00:00 PM	0.70	61.0	31.0	0.055	563.6	0.0
<u>Linden</u>	<u>7</u>	<u>Total</u>	9.27	685.0	288.0	0.038	8,152.5	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time</i> <i>(hrs)</i>	<i>Load</i> <i>(MW)</i>	<i>NOx Emissions</i> <i>Mass</i> <i>(lbs)</i>	<i>NOx Emission</i> <i>Rate</i> <i>(lb/MMBtu)</i>	<i>Natural Gas</i> <i>Heat Input</i> <i>(MMBtu)</i>	<i>Oil Heat Input</i> <i>(MMBtu)</i>
Date: 7/16/2013								
Unit:	Linden	8	8					
		9:00:00 AM	0.63	49.0	26.5	0.07	378.7	0.0
		10:00:00 AM	1.00	70.0	26.0	0.033	789.1	0.0
		11:00:00 AM	1.00	70.0	25.2	0.032	788.3	0.0
		12:00:00 PM	1.00	69.0	25.0	0.032	781.2	0.0
		1:00:00 PM	1.00	69.0	25.0	0.032	781.4	0.0
		2:00:00 PM	1.00	69.0	25.7	0.033	779.2	0.0
		3:00:00 PM	1.00	69.0	25.7	0.033	778.8	0.0
		4:00:00 PM	1.00	69.0	25.7	0.033	778.8	0.0
		5:00:00 PM	1.00	69.0	25.0	0.032	782.3	0.0
		6:00:00 PM	0.70	59.0	25.2	0.052	484.2	0.0
<u>Linden</u>	<u>8</u>	<u>Total</u>	9.33	662.0	255.0	0.038	7,122.0	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time (hrs)</i>	<i>Load (MW)</i>	<i>NOx Emissions Mass (lbs)</i>	<i>NOx Emission Rate (lb/MMBtu)</i>	<i>Natural Gas Heat Input (MMBtu)</i>	<i>Oil Heat Input (MMBtu)</i>
Date: 7/16/2013								
Unit:	Sewaren	1	1					
			12:00:00 AM	1.00	26.0	16.8	0.047	356.8
			1:00:00 AM	1.00	26.0	27.5	0.077	357.1
			2:00:00 AM	1.00	26.0	17.5	0.048	365.5
			3:00:00 AM	1.00	26.0	17.6	0.048	366.9
			4:00:00 AM	1.00	26.0	17.6	0.048	367.3
			5:00:00 AM	1.00	26.0	17.6	0.048	367.2
			6:00:00 AM	1.00	26.0	17.6	0.048	365.9
			7:00:00 AM	1.00	26.0	17.1	0.047	362.9
			8:00:00 AM	1.00	43.0	28.0	0.054	517.8
			9:00:00 AM	1.00	55.0	37.5	0.059	635.6
			10:00:00 AM	1.00	56.0	37.2	0.059	630.9
			11:00:00 AM	1.00	57.0	38.5	0.06	641.3
			12:00:00 PM	1.00	56.0	37.4	0.059	634.0
			1:00:00 PM	1.00	54.0	35.8	0.058	617.0
			2:00:00 PM	1.00	53.0	35.0	0.058	603.2
			3:00:00 PM	1.00	52.0	34.6	0.058	595.9
			4:00:00 PM	1.00	53.0	34.9	0.058	602.3
			5:00:00 PM	1.00	52.0	33.9	0.057	593.9
			6:00:00 PM	1.00	52.0	33.9	0.057	594.4
			7:00:00 PM	1.00	56.0	38.5	0.06	641.6
			8:00:00 PM	1.00	55.0	37.8	0.059	639.9
			9:00:00 PM	1.00	36.0	22.6	0.051	442.5
			10:00:00 PM	1.00	24.0	14.8	0.046	322.3
			11:00:00 PM	1.00	20.0	14.6	0.046	317.6
<u>Sewaren</u>	<u>1</u>	<u>Total</u>	24.00	982.0	664.3	0.055	11,939.8	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time (hrs)</i>	<i>Load (MW)</i>	<i>NOx Emissions Mass (lbs)</i>	<i>NOx Emission Rate (lb/MMBtu)</i>	<i>Natural Gas Heat Input (MMBtu)</i>	<i>Oil Heat Input (MMBtu)</i>
Date: 7/16/2013								
Unit:	Sewaren	2	2					
	12:00:00 AM		0.67	2.0	0.5	0.031	17.7	0.0
	1:00:00 AM		1.00	2.0	1.2	0.031	38.1	0.0
	2:00:00 AM		1.00	2.0	1.8	0.031	56.9	0.0
	3:00:00 AM		1.00	2.0	1.8	0.031	56.7	0.0
	4:00:00 AM		1.00	2.0	1.8	0.031	56.8	0.0
	5:00:00 AM		1.00	1.0	1.9	0.031	60.4	0.0
	6:00:00 AM		1.00	1.0	1.8	0.031	58.0	0.0
	7:00:00 AM		1.00	1.0	2.2	0.031	70.7	0.0
	8:00:00 AM		1.00	1.0	2.6	0.031	84.4	0.0
	9:00:00 AM		1.00	1.0	2.6	0.031	82.5	0.0
	10:00:00 AM		1.00	2.0	3.5	0.031	113.2	0.0
	11:00:00 AM		1.00	28.0	14.6	0.04	364.8	0.0
	12:00:00 PM		1.00	36.0	20.7	0.049	422.7	0.0
	1:00:00 PM		1.00	38.0	22.2	0.051	435.0	0.0
	2:00:00 PM		1.00	43.0	29.3	0.06	488.8	0.0
	3:00:00 PM		1.00	60.0	50.0	0.074	676.2	0.0
	4:00:00 PM		1.00	75.0	59.0	0.073	808.2	0.0
	5:00:00 PM		1.00	64.0	51.4	0.074	694.1	0.0
	6:00:00 PM		1.00	75.0	58.8	0.073	805.1	0.0
	7:00:00 PM		1.00	89.0	66.4	0.072	921.7	0.0
	8:00:00 PM		1.00	90.0	67.0	0.072	929.9	0.0
	9:00:00 PM		1.00	67.0	52.7	0.074	712.6	0.0
	10:00:00 PM		1.00	61.0	48.1	0.074	650.3	0.0
	11:00:00 PM		1.00	38.0	21.9	0.051	430.0	0.0
<u>Sewaren</u>	<u>2</u>	<u>Total</u>	23.67	781.0	583.8	0.049	9,034.8	0.0
<u>7/16/2013</u>	<u>Total</u>		257.38	10,457.0	28,186.1	0.250	124,996.9	0.0

Date: 7/17/2013

* Only hours in which a unit operated are listed.

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			<i>Run Time</i> <i>(hrs)</i>	<i>Load</i> <i>(MW)</i>	<i>NOx Emissions</i> <i>Mass</i> <i>(lbs)</i>	<i>NOx Emission</i> <i>Rate</i> <i>(lb/MMBtu)</i>	<i>Natural Gas</i> <i>Heat Input</i> <i>(MMBtu)</i>	<i>Oil Heat Input</i> <i>(MMBtu)</i>
Date: 7/17/2013								
Unit:	Burlington	121	121					
	9:00:00 AM		0.87	37.0	25.1	0.082	306.5	0.0
	10:00:00 AM		1.00	40.0	31.4	0.083	378.1	0.0
	11:00:00 AM		1.00	41.0	31.7	0.084	377.7	0.0
	12:00:00 PM		1.00	40.0	31.9	0.085	374.9	0.0
	1:00:00 PM		1.00	40.0	31.8	0.085	374.7	0.0
	2:00:00 PM		1.00	40.0	32.2	0.086	373.9	0.0
	3:00:00 PM		1.00	40.0	33.0	0.088	375.5	0.0
	4:00:00 PM		1.00	40.0	33.0	0.088	375.0	0.0
	5:00:00 PM		1.00	40.0	32.2	0.086	374.8	0.0
	6:00:00 PM		1.00	40.0	32.3	0.086	375.3	0.0
	7:00:00 PM		1.00	41.0	31.6	0.084	376.5	0.0
	8:00:00 PM		1.00	41.0	31.5	0.083	379.8	0.0
	9:00:00 PM		1.00	40.0	33.0	0.088	374.9	0.0
	10:00:00 PM		0.08	0.0	1.6	0.195	8.0	0.0
<u>Burlington</u>	<u>121</u>	<u>Total</u>	12.95	520.0	412.3	0.093	4,825.6	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time</i> <i>(hrs)</i>	<i>Load</i> <i>(MW)</i>	<i>NOx Emissions</i> <i>Mass</i> <i>(lbs)</i>	<i>NOx Emission</i> <i>Rate</i> <i>(lb/MMBtu)</i>	<i>Natural Gas</i> <i>Heat Input</i> <i>(MMBtu)</i>	<i>Oil Heat Input</i> <i>(MMBtu)</i>
Date: 7/17/2013								
Unit:	Burlington	122	122					
	9:00:00 AM		0.87	38.0	30.7	0.093	329.8	0.0
	10:00:00 AM		1.00	42.0	34.1	0.084	405.5	0.0
	11:00:00 AM		1.00	41.0	34.7	0.086	403.6	0.0
	12:00:00 PM		1.00	41.0	34.4	0.086	400.0	0.0
	1:00:00 PM		1.00	41.0	33.9	0.085	399.1	0.0
	2:00:00 PM		1.00	41.0	34.3	0.086	399.2	0.0
	3:00:00 PM		1.00	41.0	33.3	0.083	401.1	0.0
	4:00:00 PM		1.00	41.0	33.2	0.083	400.0	0.0
	5:00:00 PM		1.00	41.0	33.3	0.083	401.6	0.0
	6:00:00 PM		1.00	41.0	33.0	0.082	402.5	0.0
	7:00:00 PM		1.00	42.0	34.2	0.085	401.8	0.0
	8:00:00 PM		1.00	42.0	34.7	0.086	403.7	0.0
	9:00:00 PM		1.00	41.0	34.3	0.085	403.2	0.0
	10:00:00 PM		0.08	1.0	1.9	0.218	8.7	0.0
<u>Burlington</u>	<u>122</u>	<u>Total</u>	12.95	534.0	440.0	0.095	5,159.8	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time</i> <i>(hrs)</i>	<i>Load</i> <i>(MW)</i>	<i>NOx Emissions</i> <i>Mass</i> <i>(lbs)</i>	<i>NOx Emission</i> <i>Rate</i> <i>(lb/MMBtu)</i>	<i>Natural Gas</i> <i>Heat Input</i> <i>(MMBtu)</i>	<i>Oil Heat Input</i> <i>(MMBtu)</i>
Date: 7/17/2013								
Unit:	Burlington	123	123					
	9:00:00 AM		0.87	37.0	31.4	0.096	326.8	0.0
	10:00:00 AM		1.00	41.0	35.4	0.088	402.8	0.0
	11:00:00 AM		1.00	41.0	35.8	0.089	401.9	0.0
	12:00:00 PM		1.00	41.0	35.6	0.089	399.9	0.0
	1:00:00 PM		1.00	41.0	35.6	0.089	399.5	0.0
	2:00:00 PM		1.00	41.0	35.2	0.088	399.8	0.0
	3:00:00 PM		1.00	41.0	35.7	0.089	401.0	0.0
	4:00:00 PM		1.00	41.0	35.2	0.088	400.1	0.0
	5:00:00 PM		1.00	41.0	34.6	0.086	402.2	0.0
	6:00:00 PM		1.00	41.0	33.8	0.084	402.4	0.0
	7:00:00 PM		1.00	41.0	33.2	0.083	400.1	0.0
	8:00:00 PM		1.00	41.0	33.9	0.084	403.3	0.0
	9:00:00 PM		1.00	41.0	36.0	0.09	400.5	0.0
	10:00:00 PM		0.08	1.0	2.2	0.236	9.1	0.0
<u>Burlington</u>	<u>123</u>	<u>Total</u>	12.95	530.0	453.6	0.099	5,149.4	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>(hrs)</i>	<i>Load</i>					
<i>(MW)</i>							
Date: 7/17/2013							
Unit:	Burlington	124	124				
	9:00:00 AM	0.87	39.0	29.8	0.094	316.4	0.0
	10:00:00 AM	1.00	43.0	30.7	0.078	393.0	0.0
	11:00:00 AM	1.00	43.0	32.2	0.082	392.9	0.0
	12:00:00 PM	1.00	43.0	33.1	0.085	389.6	0.0
	1:00:00 PM	1.00	41.0	31.5	0.084	375.1	0.0
	2:00:00 PM	1.00	41.0	31.7	0.085	372.9	0.0
	3:00:00 PM	1.00	41.0	31.1	0.083	374.9	0.0
	4:00:00 PM	1.00	41.0	31.0	0.083	374.0	0.0
	5:00:00 PM	1.00	41.0	29.9	0.08	373.8	0.0
	6:00:00 PM	1.00	41.0	29.4	0.078	376.9	0.0
	7:00:00 PM	1.00	42.0	29.3	0.077	380.1	0.0
	8:00:00 PM	1.00	43.0	29.9	0.078	383.1	0.0
	9:00:00 PM	1.00	42.0	30.5	0.08	381.8	0.0
	10:00:00 PM	0.08	1.0	1.7	0.203	8.3	0.0
<u>Burlington</u>	<u>124</u>	<u>Total</u>	12.95	542.0	0.091	4,892.8	0.0
Unit:	Edison	11 A/B	1001				
	1:00:00 PM	1.00	26.0	165.8	0.42	394.8	0.0
	2:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	3:00:00 PM	1.00	2.0	12.8	0.42	30.4	0.0
<u>Edison</u>	<u>11 A/B</u>	<u>Total</u>	3.00	61.0	0.420	926.3	0.0
Unit:	Edison	12 A/B	3001				
	1:00:00 PM	1.00	25.0	159.4	0.42	379.6	0.0
	2:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	3:00:00 PM	1.00	3.0	19.2	0.42	45.6	0.0
<u>Edison</u>	<u>12 A/B</u>	<u>Total</u>	3.00	61.0	0.420	926.3	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
	<i>Run Time</i>	<i>Load</i>					
	<i>(hrs)</i>	<i>(MW)</i>					
Date: 7/17/2013							
Unit:	Edison	13 A/B	5001				
	12:00:00 PM	1.00	25.0	159.4	0.42	379.6	0.0
	1:00:00 PM	1.00	28.0	178.6	0.42	425.2	0.0
	2:00:00 PM	1.00	28.0	178.6	0.42	425.2	0.0
	3:00:00 PM	1.00	27.0	172.2	0.42	410.0	0.0
	4:00:00 PM	1.00	27.0	172.2	0.42	410.0	0.0
	5:00:00 PM	1.00	27.0	172.2	0.42	410.0	0.0
	6:00:00 PM	1.00	27.0	172.2	0.42	410.0	0.0
	7:00:00 PM	1.00	28.0	178.6	0.42	425.2	0.0
Edison	13 A/B	Total	8.00	217.0	1,384.0	0.420	3,295.2
Unit:	Edison	14 A/B	7001				
	1:00:00 PM	1.00	26.0	165.8	0.42	394.8	0.0
	2:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	3:00:00 PM	1.00	3.0	19.2	0.42	45.6	0.0
Edison	14 A/B	Total	3.00	63.0	401.8	0.420	956.7
Unit:	Edison	21 A/B	9001				
	12:00:00 PM	1.00	29.0	185.0	0.42	440.4	0.0
	1:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	2:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	3:00:00 PM	1.00	11.0	70.1	0.42	167.0	0.0
Edison	21 A/B	Total	4.00	103.0	656.9	0.420	1,564.1
Unit:	Edison	22 A/B	11001				
	12:00:00 PM	1.00	30.0	191.4	0.42	455.6	0.0
	1:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	2:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	3:00:00 PM	1.00	11.0	70.1	0.42	167.0	0.0
Edison	22 A/B	Total	4.00	107.0	682.5	0.420	1,624.8

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>Load</i>						
<i>(hrs)</i>	<i>(MW)</i>						
Date: 7/17/2013							
Unit:	Edison	23 A/B	13001				
12:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0	
1:00:00 PM	1.00	35.0	223.2	0.42	531.5	0.0	
2:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0	
3:00:00 PM	1.00	12.0	76.5	0.42	182.2	0.0	
Edison	23 A/B	Total	4.00	112.0	714.2	0.420	1,700.8
Unit:	Edison	24 A/B	15001				
12:00:00 PM	1.00	30.0	191.4	0.42	455.6	0.0	
1:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0	
2:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0	
3:00:00 PM	1.00	11.0	70.1	0.42	167.0	0.0	
Edison	24 A/B	Total	4.00	108.0	688.8	0.420	1,640.0
Unit:	Edison	31 A/B	17001				
1:00:00 PM	1.00	26.0	165.8	0.42	394.8	0.0	
2:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0	
3:00:00 PM	1.00	3.0	19.2	0.42	45.6	0.0	
Edison	31 A/B	Total	3.00	61.0	389.1	0.420	926.3
Unit:	Edison	32 A/B	19001				
1:00:00 PM	1.00	23.0	146.7	0.42	349.3	0.0	
2:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0	
3:00:00 PM	1.00	2.0	12.8	0.42	30.4	0.0	
Edison	32 A/B	Total	3.00	57.0	363.6	0.420	865.6

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
				<i>Run Time</i>	<i>Load</i>		
				<i>(hrs)</i>	<i>(MW)</i>		
Date: 7/17/2013							
Unit:	Edison	33 A/B	21001				
	12:00:00 PM	1.00	29.0	185.0	0.42	440.4	0.0
	1:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	2:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	3:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	4:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	5:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	6:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	7:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	8:00:00 PM	1.00	1.0	6.4	0.42	15.2	0.0
Edison	33 A/B	Total	9.00	248.0	1,581.7	0.420	3,766.3
Unit:	Edison	34 A/B	23001				
	1:00:00 PM	1.00	11.0	70.1	0.42	167.0	0.0
	2:00:00 PM	1.00	15.0	95.7	0.42	227.8	0.0
Edison	34 A/B	Total	2.00	26.0	165.8	0.420	394.8

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions Mass (lbs)</i>	<i>NOx Emission Rate (lb/MMBtu)</i>	<i>Natural Gas Heat Input (MMBtu)</i>	<i>Oil Heat Input (MMBtu)</i>	
				<i>Run Time (hrs)</i>	<i>Load (MW)</i>			
Date: 7/17/2013								
Unit:	Essex	101 A/B	2001					
		12:00:00 AM	1.00	22.0	240.5	0.7	343.5	0.0
		1:00:00 AM	1.00	35.0	382.6	0.7	546.5	0.0
		2:00:00 AM	1.00	20.0	218.6	0.7	312.3	0.0
		12:00:00 PM	1.00	29.0	317.0	0.7	452.8	0.0
		1:00:00 PM	1.00	33.0	360.6	0.7	515.2	0.0
		2:00:00 PM	1.00	33.0	360.6	0.7	515.2	0.0
		3:00:00 PM	1.00	33.0	360.6	0.7	515.2	0.0
		4:00:00 PM	1.00	32.0	349.7	0.7	499.6	0.0
		5:00:00 PM	1.00	33.0	360.6	0.7	515.2	0.0
		6:00:00 PM	1.00	34.0	371.6	0.7	530.8	0.0
		7:00:00 PM	1.00	34.0	371.6	0.7	530.8	0.0
		8:00:00 PM	1.00	34.0	371.6	0.7	530.8	0.0
		9:00:00 PM	1.00	34.0	371.6	0.7	530.8	0.0
		10:00:00 PM	1.00	23.0	251.4	0.7	359.1	0.0
Essex	101 A/B	Total	14.00	429.0	4,688.6	0.700	6,697.8	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>	
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>		
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	<i>(MMBtu)</i>	
				<i>Load</i>				
				<i>(MW)</i>				
				<i>Run Time</i>				
				<i>(hrs)</i>				
<i>Date: 7/17/2013</i>								
Unit:	Essex	102 A/B	4001					
		12:00:00 AM	1.00	20.0	218.6	0.7	312.3	0.0
		1:00:00 AM	1.00	32.0	349.7	0.7	499.6	0.0
		2:00:00 AM	1.00	19.0	207.6	0.7	296.6	0.0
		12:00:00 PM	1.00	27.0	295.1	0.7	421.6	0.0
		1:00:00 PM	1.00	29.0	317.0	0.7	452.8	0.0
		2:00:00 PM	1.00	30.0	327.9	0.7	468.4	0.0
		3:00:00 PM	1.00	29.0	317.0	0.7	452.8	0.0
		4:00:00 PM	1.00	30.0	327.9	0.7	468.4	0.0
		5:00:00 PM	1.00	30.0	327.9	0.7	468.4	0.0
		6:00:00 PM	1.00	31.0	338.8	0.7	484.0	0.0
		7:00:00 PM	1.00	31.0	338.8	0.7	484.0	0.0
		8:00:00 PM	1.00	31.0	338.8	0.7	484.0	0.0
		9:00:00 PM	1.00	31.0	338.8	0.7	484.0	0.0
		10:00:00 PM	1.00	23.0	251.4	0.7	359.1	0.0
Essex	102 A/B	Total	14.00	393.0	4,295.3	0.700	6,136.0	0.0
Unit:	Essex	103 A/B	10001					
		12:00:00 AM	1.00	13.0	142.1	0.7	203.0	0.0
		1:00:00 AM	1.00	16.0	174.9	0.7	249.8	0.0
		2:00:00 AM	1.00	13.0	142.1	0.7	203.0	0.0
		12:00:00 PM	1.00	6.0	65.6	0.7	93.7	0.0
		1:00:00 PM	1.00	8.0	87.4	0.7	124.9	0.0
		2:00:00 PM	1.00	13.0	142.1	0.7	203.0	0.0
		3:00:00 PM	1.00	12.0	131.2	0.7	187.4	0.0
		4:00:00 PM	1.00	10.0	109.3	0.7	156.1	0.0
		5:00:00 PM	1.00	15.0	163.9	0.7	234.2	0.0
		6:00:00 PM	1.00	1.0	10.9	0.7	15.6	0.0
Essex	103 A/B	Total	10.00	107.0	1,169.5	0.700	1,670.7	0.0

* Only hours in which a unit operated are listed.

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				NOx Emissions	NOx Emission	Natural Gas	Oil Heat Input	
				Mass	Rate	Heat Input		
				(lbs)	(lb/MMBtu)	(MMBtu)	(MMBtu)	
				Load				
				(MW)				
				Run Time				
				(hrs)				
Date: 7/17/2013								
Unit:	Essex	104 A/B	12001					
	12:00:00 AM	1.00	21.0	229.5	0.7	327.9	0.0	
	1:00:00 AM	1.00	34.0	371.6	0.7	530.8	0.0	
	2:00:00 AM	1.00	19.0	207.6	0.7	296.6	0.0	
	12:00:00 PM	1.00	11.0	120.2	0.7	171.7	0.0	
	1:00:00 PM	1.00	12.0	131.2	0.7	187.4	0.0	
	2:00:00 PM	1.00	32.0	349.7	0.7	499.6	0.0	
	3:00:00 PM	1.00	31.0	338.8	0.7	484.0	0.0	
	4:00:00 PM	1.00	32.0	349.7	0.7	499.6	0.0	
	5:00:00 PM	1.00	33.0	360.6	0.7	515.2	0.0	
	6:00:00 PM	1.00	32.0	349.7	0.7	499.6	0.0	
	7:00:00 PM	1.00	34.0	371.6	0.7	530.8	0.0	
	8:00:00 PM	1.00	33.0	360.6	0.7	515.2	0.0	
	9:00:00 PM	1.00	33.0	360.6	0.7	515.2	0.0	
	10:00:00 PM	1.00	23.0	251.4	0.7	359.1	0.0	
Essex	104 A/B	Total	14.00	380.0	4,152.8	0.700	5,932.7	0.0
Unit:	Essex	9	35001					
	9:00:00 AM	0.30	62.0	5.7	0.053	108.3	0.0	
	10:00:00 AM	0.62	74.0	26.5	0.06	441.2	0.0	
	11:00:00 AM	0.35	56.0	7.2	0.066	109.2	0.0	
	12:00:00 PM	0.18	73.0	7.8	0.062	126.6	0.0	
	5:00:00 PM	0.18	54.0	4.3	0.095	45.3	0.0	
	6:00:00 PM	1.00	73.0	154.7	0.22	703.3	0.0	
	7:00:00 PM	0.05	74.0	2.6	0.073	35.7	0.0	
Essex	9	Total	2.68	466.0	208.9	0.090	1,569.5	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time</i> <i>(hrs)</i>	<i>Load</i> <i>(MW)</i>	<i>NOx Emissions</i> <i>Mass</i> <i>(lbs)</i>	<i>NOx Emission</i> <i>Rate</i> <i>(lb/MMBtu)</i>	<i>Natural Gas</i> <i>Heat Input</i> <i>(MMBtu)</i>	<i>Oil Heat Input</i> <i>(MMBtu)</i>
Date: 7/17/2013								
Unit:	Kearny	121	121					
		12:00:00 AM	0.90	38.0	30.5	0.096	317.8	0.0
		8:00:00 AM	0.95	40.0	34.6	0.1	345.7	0.0
		9:00:00 AM	1.00	43.0	34.1	0.087	392.1	0.0
		10:00:00 AM	1.00	43.0	35.3	0.091	388.0	0.0
		11:00:00 AM	1.00	43.0	35.5	0.092	385.8	0.0
		12:00:00 PM	1.00	42.0	35.7	0.093	384.2	0.0
		1:00:00 PM	1.00	42.0	35.2	0.092	382.1	0.0
		2:00:00 PM	1.00	42.0	34.2	0.089	384.5	0.0
		3:00:00 PM	1.00	44.0	31.7	0.08	396.8	0.0
		4:00:00 PM	1.00	44.0	31.0	0.078	397.3	0.0
		5:00:00 PM	1.00	44.0	30.6	0.077	396.8	0.0
		6:00:00 PM	1.00	44.0	30.8	0.078	394.8	0.0
		7:00:00 PM	1.00	44.0	30.8	0.078	394.5	0.0
		8:00:00 PM	1.00	44.0	30.5	0.077	396.3	0.0
		9:00:00 PM	0.70	38.0	22.8	0.092	247.7	0.0
<u>Kearny</u>	<u>121</u>	<u>Total</u>	14.55	635.0	483.3	0.087	5,604.4	0.0

* Only hours in which a unit operated are listed.

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				NOx Emissions	NOx Emission	Natural Gas	Oil Heat Input	
				Mass	Rate	Heat Input		
				(lbs)	(lb/MMBtu)	(MMBtu)	(MMBtu)	
Run Time								
(hrs)								
Load								
(MW)								
Date: 7/17/2013								
Unit:	Kearny	122	122					
	12:00:00 AM	1.00	43.0	33.7	0.078	431.6	0.0	
	1:00:00 AM	0.55	35.0	18.6	0.091	205.2	0.0	
	8:00:00 AM	0.93	39.0	33.2	0.089	373.3	0.0	
	9:00:00 AM	1.00	43.0	34.9	0.08	435.8	0.0	
	10:00:00 AM	1.00	43.0	35.0	0.081	432.6	0.0	
	11:00:00 AM	1.00	42.0	35.0	0.081	431.9	0.0	
	12:00:00 PM	1.00	42.0	34.8	0.081	429.9	0.0	
	1:00:00 PM	1.00	42.0	34.7	0.081	428.3	0.0	
	2:00:00 PM	1.00	42.0	34.4	0.08	430.0	0.0	
	3:00:00 PM	1.00	43.0	35.5	0.081	437.8	0.0	
	4:00:00 PM	1.00	43.0	35.4	0.081	437.3	0.0	
	5:00:00 PM	1.00	43.0	34.6	0.08	432.4	0.0	
	6:00:00 PM	1.00	42.0	34.2	0.08	427.8	0.0	
	7:00:00 PM	1.00	40.0	34.3	0.083	413.2	0.0	
	8:00:00 PM	1.00	40.0	34.8	0.084	413.9	0.0	
	9:00:00 PM	0.72	35.0	25.4	0.096	265.1	0.0	
Kearny	122	Total	15.20	657.0	528.6	0.083	6,426.1	0.0

* Only hours in which a unit operated are listed.

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				NOx Emissions	NOx Emission	Natural Gas	Oil Heat Input	
				Mass	Rate	Heat Input	Heat Input	
				(lbs)	(lb/MMBtu)	(MMBtu)	(MMBtu)	
Run Time				Load				
(hrs)				(MW)				
Date: 7/17/2013								
Unit:	Kearny	123	123					
	12:00:00 AM	1.00	37.0	26.8	0.067	399.9	0.0	
	1:00:00 AM	0.57	29.0	16.5	0.084	196.2	0.0	
	8:00:00 AM	0.95	34.0	29.4	0.081	362.8	0.0	
	9:00:00 AM	1.00	37.0	32.0	0.079	404.8	0.0	
	10:00:00 AM	1.00	37.0	33.1	0.082	403.7	0.0	
	11:00:00 AM	1.00	38.0	34.4	0.084	409.1	0.0	
	12:00:00 PM	1.00	38.0	34.3	0.084	408.1	0.0	
	1:00:00 PM	1.00	38.0	35.7	0.087	410.3	0.0	
	2:00:00 PM	1.00	37.0	31.9	0.079	403.6	0.0	
	3:00:00 PM	1.00	37.0	29.7	0.074	400.7	0.0	
	4:00:00 PM	1.00	36.0	29.2	0.073	399.6	0.0	
	5:00:00 PM	1.00	36.0	28.6	0.072	397.1	0.0	
	6:00:00 PM	1.00	36.0	28.2	0.071	397.3	0.0	
	7:00:00 PM	1.00	37.0	28.0	0.07	400.1	0.0	
	8:00:00 PM	1.00	38.0	29.4	0.072	408.2	0.0	
	9:00:00 PM	0.72	33.0	22.8	0.086	264.7	0.0	
Kearny	123	Total	15.24	578.0	469.9	0.078	6,066.2	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time</i> (hrs)	<i>Load</i> (MW)	<i>NOx Emissions</i> <i>Mass</i> (lbs)	<i>NOx Emission</i> <i>Rate</i> (lb/MMBtu)	<i>Natural Gas</i> <i>Heat Input</i> (MMBtu)	<i>Oil Heat Input</i> (MMBtu)
Date: 7/17/2013								
Unit:	Kearny	124	124					
		12:00:00 AM	1.00	44.0	30.9	0.077	401.5	0.0
		1:00:00 AM	0.92	39.0	28.4	0.084	338.7	0.0
		9:00:00 AM	0.93	40.0	28.1	0.081	346.6	0.0
		10:00:00 AM	1.00	43.0	31.0	0.078	397.8	0.0
		11:00:00 AM	1.00	43.0	31.7	0.08	395.7	0.0
		12:00:00 PM	1.00	43.0	31.9	0.081	393.6	0.0
		1:00:00 PM	1.00	42.0	31.4	0.08	392.1	0.0
		2:00:00 PM	1.00	42.0	32.0	0.082	390.3	0.0
		3:00:00 PM	1.00	42.0	31.4	0.08	392.2	0.0
		4:00:00 PM	1.00	43.0	31.1	0.078	398.6	0.0
		5:00:00 PM	1.00	43.0	30.3	0.076	399.3	0.0
		6:00:00 PM	1.00	43.0	29.9	0.075	398.9	0.0
		7:00:00 PM	1.00	43.0	28.6	0.072	396.9	0.0
		8:00:00 PM	1.00	43.0	28.2	0.071	397.0	0.0
		9:00:00 PM	1.00	44.0	28.7	0.072	398.2	0.0
		10:00:00 PM	0.72	37.0	21.1	0.082	257.1	0.0
<u>Kearny</u>	<u>124</u>	<u>Total</u>	15.57	674.0	474.7	0.078	6,094.6	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
	<i>Run Time</i>	<i>Load</i>					
	<i>(hrs)</i>	<i>(MW)</i>					
Date: 7/17/2013							
Unit:	Linden	5	5				
	9:00:00 AM	0.80	58.0	30.9	0.057	541.5	0.0
	10:00:00 AM	1.00	74.0	25.3	0.031	815.9	0.0
	11:00:00 AM	1.00	74.0	25.2	0.031	813.1	0.0
	12:00:00 PM	1.00	74.0	26.0	0.032	812.9	0.0
	1:00:00 PM	1.00	74.0	26.0	0.032	813.1	0.0
	2:00:00 PM	1.00	74.0	26.1	0.032	815.0	0.0
	3:00:00 PM	1.00	73.0	25.2	0.031	813.5	0.0
	4:00:00 PM	1.00	73.0	25.2	0.031	812.6	0.0
	5:00:00 PM	1.00	74.0	25.3	0.031	815.8	0.0
	6:00:00 PM	1.00	74.0	26.1	0.032	816.4	0.0
	7:00:00 PM	1.00	74.0	26.2	0.032	818.0	0.0
	8:00:00 PM	1.00	74.0	25.4	0.031	818.3	0.0
	9:00:00 PM	0.38	37.0	12.3	0.067	183.4	0.0
<u>Linden</u>	<u>5</u>	<u>Total</u>	12.18	907.0	0.036	9,689.5	0.0
Unit:	Linden	6	6				
	9:00:00 AM	0.22	18.0	10.3	0.128	80.8	0.0
	10:00:00 AM	1.00	76.0	32.6	0.035	931.0	0.0
	11:00:00 AM	1.00	76.0	27.0	0.029	930.4	0.0
	12:00:00 PM	1.00	75.0	26.8	0.029	922.6	0.0
	1:00:00 PM	1.00	76.0	26.8	0.029	924.8	0.0
	2:00:00 PM	1.00	75.0	26.7	0.029	920.4	0.0
	3:00:00 PM	1.00	75.0	26.7	0.029	919.7	0.0
	4:00:00 PM	1.00	75.0	25.6	0.028	913.5	0.0
	5:00:00 PM	1.00	75.0	26.7	0.029	919.9	0.0
	6:00:00 PM	1.00	76.0	27.9	0.03	929.1	0.0
	7:00:00 PM	1.00	76.0	27.9	0.03	929.5	0.0
	8:00:00 PM	1.00	76.0	26.8	0.029	925.6	0.0
	9:00:00 PM	0.40	37.0	15.5	0.072	215.4	0.0
<u>Linden</u>	<u>6</u>	<u>Total</u>	11.62	886.0	0.040	10,462.7	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>Load</i>						
<i>(hrs)</i>	<i>(MW)</i>						
Date: 7/17/2013							
Unit:	Linden	7	7				
	9:00:00 AM	0.23	11.0	9.5	0.13	72.6	0.0
	10:00:00 AM	1.00	71.0	37.9	0.042	901.5	0.0
	11:00:00 AM	1.00	71.0	28.9	0.032	903.0	0.0
	12:00:00 PM	1.00	71.0	27.9	0.031	898.5	0.0
	1:00:00 PM	1.00	71.0	28.7	0.032	896.5	0.0
	2:00:00 PM	1.00	70.0	28.6	0.032	895.0	0.0
	3:00:00 PM	1.00	71.0	28.7	0.032	895.6	0.0
	4:00:00 PM	1.00	70.0	27.7	0.031	892.3	0.0
	5:00:00 PM	1.00	70.0	27.8	0.031	897.5	0.0
	6:00:00 PM	1.00	71.0	29.7	0.033	899.1	0.0
	7:00:00 PM	1.00	71.0	29.7	0.033	900.1	0.0
	8:00:00 PM	0.72	59.0	35.4	0.063	562.6	0.0
<u>Linden</u>	<u>7</u>	<u>Total</u>	10.95	777.0	0.044	9,614.3	0.0
Unit:	Linden	8	8				
	9:00:00 AM	0.23	10.0	7.4	0.122	60.6	0.0
	10:00:00 AM	1.00	69.0	30.7	0.039	787.5	0.0
	11:00:00 AM	1.00	70.0	24.3	0.031	785.3	0.0
	12:00:00 PM	1.00	70.0	23.6	0.03	787.0	0.0
	1:00:00 PM	1.00	69.0	24.6	0.031	793.2	0.0
	2:00:00 PM	1.00	69.0	24.2	0.031	780.5	0.0
	3:00:00 PM	1.00	69.0	23.8	0.03	793.5	0.0
	4:00:00 PM	1.00	69.0	22.6	0.029	777.6	0.0
	5:00:00 PM	1.00	69.0	22.7	0.029	783.6	0.0
	6:00:00 PM	1.00	69.0	24.1	0.031	778.7	0.0
	7:00:00 PM	1.00	70.0	24.1	0.031	778.8	0.0
	8:00:00 PM	0.70	59.0	22.8	0.047	485.2	0.0
<u>Linden</u>	<u>8</u>	<u>Total</u>	10.93	762.0	0.040	8,391.5	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time (hrs)</i>	<i>Load (MW)</i>	<i>NOx Emissions Mass (lbs)</i>	<i>NOx Emission Rate (lb/MMBtu)</i>	<i>Natural Gas Heat Input (MMBtu)</i>	<i>Oil Heat Input (MMBtu)</i>
Date: 7/17/2013								
Unit:	Sewaren	1	1					
			12:00:00 AM	1.00	6.0	7.0	0.046	152.7
			1:00:00 AM	1.00	26.0	15.6	0.046	339.7
			2:00:00 AM	1.00	27.0	17.6	0.048	366.8
			3:00:00 AM	1.00	32.0	19.9	0.049	406.6
			4:00:00 AM	1.00	31.0	19.6	0.049	400.8
			5:00:00 AM	1.00	31.0	19.6	0.049	399.7
			6:00:00 AM	1.00	31.0	19.8	0.049	404.5
			7:00:00 AM	1.00	62.0	48.2	0.065	741.4
			8:00:00 AM	1.00	108.0	87.8	0.071	1,236.4
			9:00:00 AM	1.00	106.0	84.8	0.072	1,177.4
			10:00:00 AM	1.00	110.0	86.3	0.071	1,214.8
			11:00:00 AM	1.00	110.0	86.4	0.071	1,216.3
			12:00:00 PM	1.00	110.0	86.3	0.071	1,215.3
			1:00:00 PM	1.00	111.0	86.0	0.071	1,211.9
			2:00:00 PM	1.00	111.0	86.7	0.071	1,220.6
			3:00:00 PM	1.00	110.0	86.2	0.071	1,214.6
			4:00:00 PM	1.00	111.0	87.4	0.071	1,230.9
			5:00:00 PM	1.00	110.0	86.5	0.071	1,219.0
			6:00:00 PM	1.00	110.0	87.0	0.071	1,225.5
			7:00:00 PM	1.00	111.0	87.5	0.071	1,232.5
			8:00:00 PM	1.00	108.0	85.9	0.072	1,193.5
			9:00:00 PM	1.00	64.0	46.2	0.064	722.3
			10:00:00 PM	1.00	42.0	27.5	0.054	509.3
			11:00:00 PM	1.00	24.0	16.2	0.047	343.7
<u>Sewaren</u>	<u>1</u>	<u>Total</u>	24.00	1,802.0	1,382.0	0.062	20,596.2	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time (hrs)</i>	<i>Load (MW)</i>	<i>NOx Emissions Mass (lbs)</i>	<i>NOx Emission Rate (lb/MMBtu)</i>	<i>Natural Gas Heat Input (MMBtu)</i>	<i>Oil Heat Input (MMBtu)</i>
Date: 7/17/2013								
Unit:	Sewaren	2	2					
	12:00:00 AM		1.00	34.0	19.1	0.047	407.0	0.0
	1:00:00 AM		1.00	42.0	27.7	0.058	477.4	0.0
	2:00:00 AM		1.00	42.0	27.7	0.058	478.0	0.0
	3:00:00 AM		1.00	38.0	22.8	0.052	437.5	0.0
	4:00:00 AM		1.00	23.0	9.6	0.031	309.0	0.0
	5:00:00 AM		1.00	23.0	9.6	0.031	308.8	0.0
	6:00:00 AM		1.00	24.0	10.6	0.033	321.6	0.0
	7:00:00 AM		1.00	62.0	51.0	0.074	689.7	0.0
	8:00:00 AM		1.00	97.0	72.5	0.072	1,006.5	0.0
	9:00:00 AM		1.00	97.0	71.0	0.071	999.9	0.0
	10:00:00 AM		1.00	103.0	77.7	0.074	1,049.8	0.0
	11:00:00 AM		1.00	108.0	82.4	0.076	1,083.7	0.0
	12:00:00 PM		1.00	110.0	83.6	0.076	1,099.7	0.0
	1:00:00 PM		1.00	111.0	85.3	0.077	1,108.0	0.0
	2:00:00 PM		1.00	109.0	82.5	0.076	1,085.8	0.0
	3:00:00 PM		1.00	105.0	78.0	0.074	1,053.8	0.0
	4:00:00 PM		1.00	107.0	80.3	0.075	1,071.3	0.0
	5:00:00 PM		1.00	107.0	80.3	0.075	1,070.7	0.0
	6:00:00 PM		1.00	107.0	80.5	0.075	1,073.6	0.0
	7:00:00 PM		1.00	108.0	80.9	0.075	1,078.5	0.0
	8:00:00 PM		1.00	107.0	78.6	0.074	1,062.5	0.0
	9:00:00 PM		1.00	74.0	54.6	0.073	748.5	0.0
	10:00:00 PM		1.00	39.0	22.0	0.051	431.0	0.0
	11:00:00 PM		1.00	30.0	14.1	0.039	361.7	0.0
<u>Sewaren</u>	<u>2</u>	<u>Total</u>	24.00	1,807.0	1,302.4	0.063	18,814.0	0.0
<u>7/17/2013</u>	<u>Total</u>		310.72	14,610.0	29,938.0	0.225	162,381.2	0.0

Date: 7/18/2013

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>Load</i>						
<i>(hrs)</i>	<i>(MW)</i>						
Date: 7/18/2013							
Unit:	Bergen	3	3001				
	12:00:00 PM	1.00	1.0	11.8	0.7	16.8	0.0
	1:00:00 PM	1.00	14.0	164.4	0.7	234.9	0.0
	2:00:00 PM	1.00	14.0	164.4	0.7	234.9	0.0
	3:00:00 PM	1.00	4.0	47.0	0.7	67.1	0.0
<u>Bergen</u>	<u>3</u>	<u>Total</u>	4.00	33.0	0.700	553.7	0.0
Unit:	Burlington	121	121				
	9:00:00 AM	1.00	36.0	29.4	0.084	350.3	0.0
	10:00:00 AM	1.00	40.0	29.5	0.079	373.8	0.0
	11:00:00 AM	1.00	40.0	30.3	0.081	374.4	0.0
	12:00:00 PM	0.90	35.0	26.0	0.084	310.1	0.0
	2:00:00 PM	0.67	35.0	20.2	0.088	229.1	0.0
	3:00:00 PM	1.00	39.0	30.2	0.082	368.9	0.0
	4:00:00 PM	1.00	39.0	31.0	0.084	369.3	0.0
	5:00:00 PM	1.00	39.0	31.8	0.086	370.0	0.0
	6:00:00 PM	1.00	39.0	33.2	0.089	373.1	0.0
	7:00:00 PM	1.00	40.0	34.3	0.091	376.9	0.0
	8:00:00 PM	1.00	40.0	33.5	0.089	376.3	0.0
	9:00:00 PM	0.38	29.0	11.7	0.102	114.5	0.0
<u>Burlington</u>	<u>121</u>	<u>Total</u>	10.95	451.0	0.087	3,986.8	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>Heat Input</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	<i>(MMBtu)</i>
				<i>Run Time</i>	<i>Load</i>		
				<i>(hrs)</i>	<i>(MW)</i>		
Date: 7/18/2013							
Unit:	Burlington	122	122				
	9:00:00 AM	1.00	38.0	32.6	0.086	379.0	0.0
	10:00:00 AM	1.00	41.0	31.4	0.078	402.0	0.0
	11:00:00 AM	1.00	41.0	32.0	0.08	399.6	0.0
	12:00:00 PM	0.90	36.0	28.3	0.086	328.8	0.0
	2:00:00 PM	0.70	33.0	22.2	0.093	238.5	0.0
	3:00:00 PM	1.00	40.0	30.7	0.078	393.7	0.0
	4:00:00 PM	1.00	40.0	30.4	0.077	394.2	0.0
	5:00:00 PM	1.00	40.0	31.6	0.08	394.7	0.0
	6:00:00 PM	1.00	40.0	33.8	0.085	397.4	0.0
	7:00:00 PM	1.00	41.0	34.6	0.086	402.4	0.0
	8:00:00 PM	1.00	41.0	34.5	0.086	400.9	0.0
	9:00:00 PM	0.38	31.0	12.8	0.102	125.2	0.0
<u>Burlington 122</u>	<u>Total</u>	10.98	462.0	354.8	0.085	4,256.4	0.0
Unit:	Burlington	123	123				
	1:00:00 AM	0.12	0.0	3.0	0.24	12.4	0.0
	9:00:00 AM	0.98	37.0	31.9	0.088	363.4	0.0
	10:00:00 AM	1.00	40.0	32.2	0.082	393.2	0.0
	11:00:00 AM	1.00	40.0	32.5	0.083	392.0	0.0
	12:00:00 PM	0.93	35.0	30.1	0.091	331.1	0.0
	2:00:00 PM	0.68	35.0	22.8	0.094	242.3	0.0
	3:00:00 PM	1.00	40.0	32.9	0.085	386.6	0.0
	4:00:00 PM	1.00	40.0	32.5	0.084	386.6	0.0
	5:00:00 PM	1.00	40.0	32.9	0.085	386.6	0.0
	6:00:00 PM	1.00	40.0	33.1	0.085	389.1	0.0
	7:00:00 PM	1.00	40.0	33.7	0.086	391.8	0.0
	8:00:00 PM	1.00	40.0	33.2	0.085	391.1	0.0
	9:00:00 PM	0.40	31.0	13.0	0.1	129.9	0.0
<u>Burlington 123</u>	<u>Total</u>	11.11	458.0	363.8	0.099	4,196.0	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time (hrs)</i>	<i>Load (MW)</i>	<i>NOx Emissions Mass (lbs)</i>	<i>NOx Emission Rate (lb/MMBtu)</i>	<i>Natural Gas Heat Input (MMBtu)</i>	<i>Oil Heat Input (MMBtu)</i>
Date: 7/18/2013								
Unit:	Burlington	124	124					
	9:00:00 AM		0.98	39.0	31.9	0.09	354.6	0.0
	10:00:00 AM		1.00	42.0	31.5	0.082	384.4	0.0
	11:00:00 AM		1.00	42.0	31.5	0.082	384.3	0.0
	12:00:00 PM		0.93	38.0	28.8	0.088	328.0	0.0
	2:00:00 PM		0.68	38.0	22.0	0.091	241.8	0.0
	3:00:00 PM		1.00	42.0	31.5	0.082	383.7	0.0
	4:00:00 PM		1.00	42.0	30.2	0.079	382.3	0.0
	5:00:00 PM		1.00	42.0	30.5	0.08	381.7	0.0
	6:00:00 PM		1.00	42.0	31.1	0.081	384.0	0.0
	7:00:00 PM		1.00	42.0	31.6	0.083	380.4	0.0
	8:00:00 PM		1.00	42.0	31.5	0.083	379.4	0.0
	9:00:00 PM		0.40	32.0	11.8	0.094	125.4	0.0
<u>Burlington</u>	<u>124</u>	<u>Total</u>	10.99	483.0	344.0	0.085	4,110.0	0.0
Unit:	Burlington	91 A/B	12001					
	1:00:00 PM		1.00	28.0	237.9	0.54	0.0	440.6
	2:00:00 PM		1.00	31.0	263.4	0.54	0.0	487.8
<u>Burlington</u>	<u>91 A/B</u>	<u>Total</u>	2.00	59.0	501.3	0.540	0.0	928.4
Unit:	Burlington	92 A/B	14001					
	1:00:00 PM		1.00	12.0	102.0	0.54	0.0	188.8
	2:00:00 PM		1.00	17.0	144.5	0.54	0.0	267.5
<u>Burlington</u>	<u>92 A/B</u>	<u>Total</u>	2.00	29.0	246.5	0.540	0.0	456.3
Unit:	Burlington	93 A/B	16001					
	1:00:00 PM		1.00	27.0	229.4	0.54	0.0	424.9
	2:00:00 PM		1.00	8.0	68.0	0.54	0.0	125.9
<u>Burlington</u>	<u>93 A/B</u>	<u>Total</u>	2.00	35.0	297.4	0.540	0.0	550.8
Unit:	Burlington	94 A/B	18001					
	1:00:00 PM		1.00	33.0	280.4	0.54	0.0	519.3
	2:00:00 PM		1.00	26.0	220.9	0.54	0.0	409.1
<u>Burlington</u>	<u>94 A/B</u>	<u>Total</u>	2.00	59.0	501.3	0.540	0.0	928.4

* Only hours in which a unit operated are listed.

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		<i>Run Time (hrs)</i>	<i>Load (MW)</i>	<i>NOx Emissions Mass (lbs)</i>	<i>NOx Emission Rate (lb/MMBtu)</i>	<i>Natural Gas Heat Input (MMBtu)</i>	<i>Oil Heat Input (MMBtu)</i>
Date: 7/18/2013							
Unit:	Burlington 111 A/B	28001					
	1:00:00 PM	1.00	10.0	85.0	0.54	0.0	157.4
	2:00:00 PM	1.00	13.0	110.5	0.54	0.0	204.6
	<u>Burlington 111 A/B Total</u>	2.00	23.0	195.5	0.540	0.0	362.0
Unit:	Burlington 112 A/B	30001					
	1:00:00 PM	1.00	25.0	212.4	0.54	0.0	393.4
	2:00:00 PM	1.00	30.0	254.9	0.54	0.0	472.1
	<u>Burlington 112 A/B Total</u>	2.00	55.0	467.3	0.540	0.0	865.5
Unit:	Burlington 113 A/B	32001					
	1:00:00 PM	1.00	24.0	203.9	0.54	0.0	377.6
	2:00:00 PM	1.00	30.0	254.9	0.54	0.0	472.1
	<u>Burlington 113 A/B Total</u>	2.00	54.0	458.8	0.540	0.0	849.7
Unit:	Burlington 114 A/B	34001					
	1:00:00 PM	1.00	18.0	152.9	0.54	0.0	283.2
	2:00:00 PM	1.00	14.0	119.0	0.54	0.0	220.3
	<u>Burlington 114 A/B Total</u>	2.00	32.0	271.9	0.540	0.0	503.5
Unit:	Edison 11 A/B	1001					
	11:00:00 AM	1.00	2.0	12.8	0.42	30.4	0.0
	12:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	1:00:00 PM	1.00	26.0	165.8	0.42	394.8	0.0
	3:00:00 PM	1.00	17.0	108.4	0.42	258.2	0.0
	4:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	5:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	6:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	7:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	8:00:00 PM	1.00	7.0	44.6	0.42	106.3	0.0
	<u>Edison 11 A/B Total</u>	9.00	213.0	1,358.5	0.420	3,234.4	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
				<i>Run Time</i>	<i>Load</i>		
				<i>(hrs)</i>	<i>(MW)</i>		
Date: 7/18/2013							
Unit:	Edison	12 A/B	3001				
	12:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	1:00:00 PM	1.00	28.0	178.6	0.42	425.2	0.0
	3:00:00 PM	1.00	19.0	121.2	0.42	288.5	0.0
	4:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	5:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	6:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	7:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	8:00:00 PM	1.00	7.0	44.6	0.42	106.3	0.0
Edison	12 A/B	Total	8.00	219.0	1,396.9	0.420	3,325.5
Unit:	Edison	13 A/B	5001				
	11:00:00 AM	1.00	1.0	6.4	0.42	15.2	0.0
	12:00:00 PM	1.00	27.0	172.2	0.42	410.0	0.0
	1:00:00 PM	1.00	27.0	172.2	0.42	410.0	0.0
	2:00:00 PM	1.00	27.0	172.2	0.42	410.0	0.0
	3:00:00 PM	1.00	27.0	172.2	0.42	410.0	0.0
	4:00:00 PM	1.00	27.0	172.2	0.42	410.0	0.0
	5:00:00 PM	1.00	27.0	172.2	0.42	410.0	0.0
	6:00:00 PM	1.00	27.0	172.2	0.42	410.0	0.0
	7:00:00 PM	1.00	27.0	172.2	0.42	410.0	0.0
	8:00:00 PM	1.00	6.0	38.3	0.42	91.1	0.0
Edison	13 A/B	Total	10.00	223.0	1,422.3	0.420	3,386.3

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>Load</i>						
<i>(hrs)</i>	<i>(MW)</i>						
Date: 7/18/2013							
Unit:	Edison	14 A/B	7001				
	11:00:00 AM	1.00	1.0	6.4	0.42	15.2	0.0
	12:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	1:00:00 PM	1.00	28.0	178.6	0.42	425.2	0.0
	3:00:00 PM	1.00	18.0	114.8	0.42	273.3	0.0
	4:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	5:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	6:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	7:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	8:00:00 PM	1.00	7.0	44.6	0.42	106.3	0.0
Edison	14 A/B	Total	9.00	224.0	1,428.4	0.420	3,401.5
Unit:	Edison	21 A/B	9001				
	12:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	1:00:00 PM	1.00	25.0	159.4	0.42	379.6	0.0
	3:00:00 PM	1.00	18.0	114.8	0.42	273.3	0.0
	4:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	5:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	6:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	7:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	8:00:00 PM	1.00	6.0	38.3	0.42	91.1	0.0
Edison	21 A/B	Total	8.00	205.0	1,307.4	0.420	3,113.1

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
				<i>Run Time</i>	<i>Load</i>		
				<i>(hrs)</i>	<i>(MW)</i>		
Date: 7/18/2013							
Unit:	Edison	22 A/B	11001				
	11:00:00 AM	1.00	1.0	6.4	0.42	15.2	0.0
	12:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	1:00:00 PM	1.00	26.0	165.8	0.42	394.8	0.0
	3:00:00 PM	1.00	18.0	114.8	0.42	273.3	0.0
	4:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	5:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	6:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	7:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	8:00:00 PM	1.00	7.0	44.6	0.42	106.3	0.0
Edison	22 A/B	Total	9.00	215.0	1,371.3	0.420	3,264.7
Unit:	Edison	23 A/B	13001				
	12:00:00 PM	1.00	35.0	223.2	0.42	531.5	0.0
	1:00:00 PM	1.00	27.0	172.2	0.42	410.0	0.0
	3:00:00 PM	1.00	17.0	108.4	0.42	258.2	0.0
	4:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	5:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	6:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	7:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	8:00:00 PM	1.00	7.0	44.6	0.42	106.3	0.0
Edison	23 A/B	Total	8.00	222.0	1,415.6	0.420	3,371.2

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
				<i>Run Time</i>	<i>Load</i>		
				<i>(hrs)</i>	<i>(MW)</i>		
Date: 7/18/2013							
Unit:	Edison	24 A/B	15001				
	12:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	1:00:00 PM	1.00	28.0	178.6	0.42	425.2	0.0
	3:00:00 PM	1.00	21.0	133.9	0.42	318.9	0.0
	4:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	5:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	6:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	7:00:00 PM	1.00	35.0	223.2	0.42	531.5	0.0
	8:00:00 PM	1.00	7.0	44.6	0.42	106.3	0.0
Edison	24 A/B	Total	8.00	226.0	1,441.2	0.420	3,431.9
Unit:	Edison	31 A/B	17001				
	11:00:00 AM	1.00	1.0	6.4	0.42	15.2	0.0
	12:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	1:00:00 PM	1.00	28.0	178.6	0.42	425.2	0.0
	3:00:00 PM	1.00	10.0	63.8	0.42	151.9	0.0
	4:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	5:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	6:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	7:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	8:00:00 PM	1.00	7.0	44.6	0.42	106.3	0.0
Edison	31 A/B	Total	9.00	207.0	1,320.3	0.420	3,143.3

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>(hrs)</i>	<i>Load</i>	<i>(MW)</i>				
Date: 7/18/2013							
Unit:	Edison	32 A/B	19001				
	11:00:00 AM	1.00	1.0	6.4	0.42	15.2	0.0
	12:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	1:00:00 PM	1.00	27.0	172.2	0.42	410.0	0.0
	3:00:00 PM	1.00	9.0	57.4	0.42	136.7	0.0
	4:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	5:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	6:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	7:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	8:00:00 PM	1.00	6.0	38.3	0.42	91.1	0.0
Edison	32 A/B	Total	9.00	202.0	1,288.4	0.420	3,067.4
Unit:	Edison	33 A/B	21001				
	11:00:00 AM	1.00	2.0	12.8	0.42	30.4	0.0
	12:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	1:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	2:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	3:00:00 PM	1.00	30.0	191.4	0.42	455.6	0.0
	4:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	5:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	6:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	7:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	8:00:00 PM	1.00	6.0	38.3	0.42	91.1	0.0
Edison	33 A/B	Total	10.00	256.0	1,632.8	0.420	3,887.8

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>Load</i>						
<i>(hrs)</i>	<i>(MW)</i>						
Date: 7/18/2013							
Unit:	Edison	34 A/B	23001				
	12:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	1:00:00 PM	1.00	28.0	178.6	0.42	425.2	0.0
	4:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	5:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	6:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	7:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	8:00:00 PM	1.00	6.0	38.3	0.42	91.1	0.0
Edison	34 A/B	Total	7.00	194.0	1,237.4	0.420	2,945.9
Unit:	Essex	101 A/B	2001				
	11:00:00 AM	1.00	1.0	10.9	0.7	15.6	0.0
	12:00:00 PM	1.00	33.0	360.6	0.7	515.2	0.0
	1:00:00 PM	1.00	32.0	349.7	0.7	499.6	0.0
	2:00:00 PM	1.00	32.0	349.7	0.7	499.6	0.0
	3:00:00 PM	1.00	32.0	349.7	0.7	499.6	0.0
	4:00:00 PM	1.00	32.0	349.7	0.7	499.6	0.0
	5:00:00 PM	1.00	32.0	349.7	0.7	499.6	0.0
	6:00:00 PM	1.00	32.0	349.7	0.7	499.6	0.0
	7:00:00 PM	1.00	29.0	317.0	0.7	452.8	0.0
Essex	101 A/B	Total	9.00	255.0	2,786.7	0.700	3,981.2

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
				<i>Load</i>			
				<i>(MW)</i>			
				<i>Run Time</i>			
				<i>(hrs)</i>			
Date: 7/18/2013							
Unit:	Essex	102 A/B	4001				
		11:00:00 AM	1.00	1.0	10.9	0.7	15.6
		12:00:00 PM	1.00	30.0	327.9	0.7	468.4
		1:00:00 PM	1.00	29.0	317.0	0.7	452.8
		2:00:00 PM	1.00	29.0	317.0	0.7	452.8
		3:00:00 PM	1.00	28.0	306.0	0.7	437.2
		4:00:00 PM	1.00	29.0	317.0	0.7	452.8
		5:00:00 PM	1.00	28.0	306.0	0.7	437.2
		6:00:00 PM	1.00	29.0	317.0	0.7	452.8
		7:00:00 PM	1.00	27.0	295.1	0.7	421.6
Essex	102 A/B	Total	9.00	230.0	2,513.9	0.700	3,591.2
Unit:	Essex	103 A/B	10001				
		12:00:00 PM	1.00	8.0	87.4	0.7	124.9
		1:00:00 PM	1.00	1.0	10.9	0.7	15.6
		2:00:00 PM	1.00	2.0	21.8	0.7	31.2
		3:00:00 PM	1.00	4.0	43.8	0.7	62.5
		4:00:00 PM	1.00	10.0	109.3	0.7	156.1
Essex	103 A/B	Total	5.00	25.0	273.2	0.700	390.3
Unit:	Essex	104 A/B	12001				
		11:00:00 AM	1.00	1.0	10.9	0.7	15.6
		12:00:00 PM	1.00	32.0	349.7	0.7	499.6
		1:00:00 PM	1.00	31.0	338.8	0.7	484.0
		2:00:00 PM	1.00	31.0	338.8	0.7	484.0
		3:00:00 PM	1.00	31.0	338.8	0.7	484.0
		4:00:00 PM	1.00	31.0	338.8	0.7	484.0
		5:00:00 PM	1.00	31.0	338.8	0.7	484.0
		6:00:00 PM	1.00	31.0	338.8	0.7	484.0
		7:00:00 PM	1.00	28.0	306.0	0.7	437.2
Essex	104 A/B	Total	9.00	247.0	2,699.4	0.700	3,856.4

* Only hours in which a unit operated are listed.

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				NOx Emissions	NOx Emission	Natural Gas	Oil Heat Input	
				Mass	Rate	Heat Input		
				(lbs)	(lb/MMBtu)	(MMBtu)	(MMBtu)	
				Run Time	Load			
				(hrs)	(MW)			
Date: 7/18/2013								
Unit:	Essex	9	35001					
		9:00:00 AM	0.20	88.0	6.0	0.131	45.5	0.0
		10:00:00 AM	0.68	71.0	30.3	0.082	370.1	0.0
		11:00:00 AM	1.00	71.0	53.6	0.079	678.8	0.0
		12:00:00 PM	1.00	70.0	53.4	0.079	676.2	0.0
		1:00:00 PM	1.00	70.0	54.0	0.08	675.4	0.0
		2:00:00 PM	1.00	70.0	54.7	0.081	674.8	0.0
		3:00:00 PM	1.00	70.0	54.0	0.08	674.8	0.0
		4:00:00 PM	1.00	70.0	54.0	0.08	674.8	0.0
		5:00:00 PM	1.00	71.0	53.4	0.079	675.7	0.0
		6:00:00 PM	1.00	71.0	54.5	0.08	680.8	0.0
		7:00:00 PM	1.00	71.0	54.0	0.079	683.1	0.0
		8:00:00 PM	1.00	72.0	52.7	0.077	684.3	0.0
		9:00:00 PM	1.00	68.0	65.2	0.1	652.2	0.0
		10:00:00 PM	0.05	72.0	1.4	0.162	8.6	0.0
Essex	9	Total	11.93	1,005.0	641.2	0.091	7,855.1	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>	
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>		
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	<i>(MMBtu)</i>	
				<i>Run Time</i>	<i>Load</i>			
				<i>(hrs)</i>	<i>(MW)</i>			
Date: 7/18/2013								
Unit:	Kearny	121	121					
		8:00:00 AM	0.17	22.0	5.7	0.144	39.5	0.0
		9:00:00 AM	1.00	40.0	32.5	0.089	365.2	0.0
		10:00:00 AM	1.00	38.0	32.0	0.091	351.6	0.0
		11:00:00 AM	1.00	42.0	31.3	0.083	377.7	0.0
		12:00:00 PM	1.00	41.0	31.4	0.084	373.4	0.0
		1:00:00 PM	1.00	42.0	32.3	0.086	376.1	0.0
		2:00:00 PM	1.00	42.0	31.2	0.083	376.3	0.0
		3:00:00 PM	1.00	42.0	30.6	0.081	377.6	0.0
		4:00:00 PM	1.00	41.0	30.2	0.08	378.1	0.0
		5:00:00 PM	1.00	41.0	30.3	0.08	378.4	0.0
		6:00:00 PM	1.00	42.0	29.9	0.079	378.5	0.0
		7:00:00 PM	1.00	42.0	29.9	0.079	378.9	0.0
		8:00:00 PM	0.87	37.0	26.1	0.086	303.8	0.0
Kearny	121	Total	12.04	512.0	373.4	0.088	4,455.1	0.0
Unit:	Kearny	122	122					
		8:00:00 AM	0.12	12.0	3.7	0.164	22.8	0.0
		9:00:00 AM	1.00	40.0	34.4	0.084	410.1	0.0
		10:00:00 AM	1.00	39.0	35.7	0.089	401.0	0.0
		11:00:00 AM	1.00	38.0	34.5	0.086	400.9	0.0
		12:00:00 PM	1.00	41.0	34.7	0.082	422.9	0.0
		1:00:00 PM	1.00	43.0	34.6	0.08	433.1	0.0
		2:00:00 PM	1.00	43.0	33.2	0.077	430.7	0.0
		3:00:00 PM	1.00	42.0	33.5	0.078	429.8	0.0
		4:00:00 PM	1.00	42.0	34.2	0.081	422.3	0.0
		5:00:00 PM	1.00	42.0	34.7	0.082	423.6	0.0
		6:00:00 PM	1.00	42.0	34.0	0.08	425.0	0.0
		7:00:00 PM	1.00	43.0	33.7	0.079	427.0	0.0
		8:00:00 PM	0.87	38.0	28.7	0.084	341.6	0.0
Kearny	122	Total	11.99	505.0	409.6	0.088	4,990.8	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
				<i>Run Time</i>	<i>Load</i>		
				<i>(hrs)</i>	<i>(MW)</i>		
Date: 7/18/2013							
Unit:	Kearny	123	123				
	8:00:00 AM	0.12	15.0	3.9	0.141	27.7	0.0
	9:00:00 AM	1.00	37.0	32.4	0.081	399.9	0.0
	10:00:00 AM	1.00	38.0	34.4	0.085	404.9	0.0
	11:00:00 AM	1.00	38.0	33.3	0.082	405.8	0.0
	12:00:00 PM	1.00	37.0	33.2	0.082	404.6	0.0
	1:00:00 PM	1.00	38.0	33.3	0.082	406.7	0.0
	2:00:00 PM	1.00	37.0	30.8	0.076	405.5	0.0
	3:00:00 PM	1.00	37.0	30.7	0.076	404.4	0.0
	4:00:00 PM	1.00	37.0	30.3	0.075	404.0	0.0
	5:00:00 PM	1.00	37.0	29.9	0.074	404.3	0.0
	6:00:00 PM	1.00	37.0	28.9	0.072	401.9	0.0
	7:00:00 PM	1.00	37.0	28.0	0.07	400.3	0.0
	8:00:00 PM	0.88	33.0	25.7	0.079	325.3	0.0
Kearny	123	Total	12.00	458.0	374.8	0.083	4,795.4
Unit:	Kearny	124	124				
	9:00:00 AM	0.12	14.0	3.4	0.154	22.2	0.0
	10:00:00 AM	1.00	43.0	30.8	0.079	389.9	0.0
	11:00:00 AM	1.00	42.0	32.6	0.084	387.8	0.0
	12:00:00 PM	1.00	42.0	32.7	0.085	385.2	0.0
	1:00:00 PM	1.00	42.0	32.5	0.085	382.7	0.0
	2:00:00 PM	1.00	41.0	32.1	0.084	381.8	0.0
	3:00:00 PM	1.00	42.0	30.7	0.08	384.1	0.0
	4:00:00 PM	1.00	42.0	30.7	0.08	384.3	0.0
	5:00:00 PM	1.00	42.0	30.2	0.078	386.7	0.0
	6:00:00 PM	1.00	42.0	30.3	0.078	388.9	0.0
	7:00:00 PM	1.00	42.0	29.7	0.076	390.5	0.0
	8:00:00 PM	1.00	42.0	29.3	0.075	390.1	0.0
	9:00:00 PM	0.88	38.0	25.9	0.082	315.4	0.0
Kearny	124	Total	12.00	514.0	370.9	0.086	4,589.6

* Only hours in which a unit operated are listed.

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				NOx Emissions	NOx Emission	Natural Gas	Oil Heat Input	
				Mass	Rate	Heat Input		
				(lbs)	(lb/MMBtu)	(MMBtu)	(MMBtu)	
				Run Time	Load			
				(hrs)	(MW)			
Date: 7/18/2013								
Unit:	Linden	5	5					
		9:00:00 AM	0.45	38.0	17.2	0.084	204.8	0.0
		10:00:00 AM	1.00	73.0	23.6	0.031	760.3	0.0
		11:00:00 AM	1.00	74.0	23.6	0.031	760.3	0.0
		12:00:00 PM	1.00	74.0	24.3	0.032	760.3	0.0
		1:00:00 PM	1.00	73.0	24.3	0.032	760.3	0.0
		2:00:00 PM	1.00	73.0	25.1	0.033	760.3	0.0
		3:00:00 PM	1.00	73.0	24.3	0.032	760.3	0.0
		4:00:00 PM	1.00	73.0	25.1	0.033	760.3	0.0
		5:00:00 PM	1.00	73.0	25.1	0.033	760.3	0.0
		6:00:00 PM	1.00	73.0	24.3	0.032	760.3	0.0
		7:00:00 PM	1.00	73.0	24.3	0.032	760.3	0.0
		8:00:00 PM	1.00	73.0	23.6	0.031	760.3	0.0
		9:00:00 PM	0.58	47.0	18.4	0.056	329.3	0.0
<u>Linden</u>	<u>5</u>	<u>Total</u>	<u>12.03</u>	<u>890.0</u>	<u>303.2</u>	<u>0.038</u>	<u>8,897.4</u>	<u>0.0</u>
Unit:	Linden	6	6					
		9:00:00 AM	0.25	23.0	13.4	0.129	104.1	0.0
		10:00:00 AM	1.00	75.0	27.8	0.03	925.2	0.0
		11:00:00 AM	1.00	75.0	26.8	0.029	924.6	0.0
		12:00:00 PM	1.00	76.0	27.8	0.03	925.5	0.0
		1:00:00 PM	1.00	76.0	27.8	0.03	927.6	0.0
		2:00:00 PM	1.00	76.0	27.8	0.03	927.3	0.0
		3:00:00 PM	1.00	76.0	27.8	0.03	925.2	0.0
		4:00:00 PM	1.00	76.0	27.7	0.03	924.4	0.0
		5:00:00 PM	1.00	76.0	27.8	0.03	925.4	0.0
		6:00:00 PM	1.00	75.0	28.6	0.031	923.6	0.0
		7:00:00 PM	1.00	75.0	28.5	0.031	918.3	0.0
		8:00:00 PM	1.00	75.0	28.4	0.031	915.3	0.0
		9:00:00 PM	0.58	48.0	21.8	0.058	374.5	0.0
<u>Linden</u>	<u>6</u>	<u>Total</u>	<u>11.83</u>	<u>902.0</u>	<u>342.0</u>	<u>0.040</u>	<u>10,641.0</u>	<u>0.0</u>

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>Load</i>						
<i>(hrs)</i>	<i>(MW)</i>						
Date: 7/18/2013							
Unit:	Linden	7	7				
	9:00:00 AM	0.20	5.0	5.1	0.103	49.5	0.0
	10:00:00 AM	1.00	69.0	41.3	0.046	897.2	0.0
	11:00:00 AM	1.00	71.0	29.3	0.032	916.0	0.0
	12:00:00 PM	1.00	71.0	29.3	0.032	915.0	0.0
	1:00:00 PM	1.00	71.0	29.3	0.032	915.1	0.0
	2:00:00 PM	1.00	71.0	29.3	0.032	914.7	0.0
	3:00:00 PM	1.00	71.0	29.3	0.032	915.1	0.0
	4:00:00 PM	1.00	71.0	29.2	0.032	912.9	0.0
	5:00:00 PM	1.00	71.0	29.1	0.032	910.5	0.0
	6:00:00 PM	1.00	70.0	29.0	0.032	906.6	0.0
	7:00:00 PM	1.00	70.0	29.0	0.032	905.0	0.0
	8:00:00 PM	1.00	70.0	29.0	0.032	906.6	0.0
	9:00:00 PM	0.47	55.0	22.6	0.064	353.1	0.0
<u>Linden</u>	<u>7</u>	<u>Total</u>	11.67	836.0	360.8	10,417.3	0.0
Unit:	Linden	8	8				
	9:00:00 AM	0.18	4.0	4.1	0.104	38.9	0.0
	10:00:00 AM	1.00	67.0	33.1	0.043	770.8	0.0
	11:00:00 AM	1.00	69.0	24.4	0.031	787.7	0.0
	12:00:00 PM	1.00	69.0	25.0	0.032	779.9	0.0
	1:00:00 PM	1.00	68.0	24.8	0.032	776.1	0.0
	2:00:00 PM	1.00	68.0	24.8	0.032	774.4	0.0
	3:00:00 PM	1.00	68.0	24.8	0.032	775.5	0.0
	4:00:00 PM	1.00	68.0	24.7	0.032	771.9	0.0
	5:00:00 PM	1.00	68.0	24.7	0.032	771.1	0.0
	6:00:00 PM	1.00	68.0	23.9	0.031	771.2	0.0
	7:00:00 PM	1.00	69.0	24.0	0.031	773.1	0.0
	8:00:00 PM	1.00	69.0	24.0	0.031	774.1	0.0
	9:00:00 PM	0.47	53.0	17.0	0.057	298.4	0.0
<u>Linden</u>	<u>8</u>	<u>Total</u>	11.65	808.0	299.3	8,863.0	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time (hrs)</i>	<i>Load (MW)</i>	<i>NOx Emissions Mass (lbs)</i>	<i>NOx Emission Rate (lb/MMBtu)</i>	<i>Natural Gas Heat Input (MMBtu)</i>	<i>Oil Heat Input (MMBtu)</i>
Date: 7/18/2013								
Unit:	National Park	1	1001					
		2:00:00 PM	1.00	1.0	36.4	1.2	0.0	30.3
<u>National Park</u>	<u>1</u>	<u>Total</u>	1.00	1.0	36.4	1.200	0.0	30.3
Unit:	Salem	3	2001					
		12:00:00 PM	1.00	15.0	266.3	1.2	0.0	221.9
		1:00:00 PM	1.00	38.0	674.5	1.2	0.0	562.1
		2:00:00 PM	1.00	38.0	674.5	1.2	0.0	562.1
		3:00:00 PM	1.00	8.0	142.0	1.2	0.0	118.3
<u>Salem</u>	<u>3</u>	<u>Total</u>	4.00	99.0	1,757.3	1.200	0.0	1,464.4

* Only hours in which a unit operated are listed.

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				NOx Emissions	NOx Emission	Natural Gas	Oil Heat Input	
				Mass	Rate	Heat Input		
				(lbs)	(lb/MMBtu)	(MMBtu)	(MMBtu)	
				Run Time	Load			
				(hrs)	(MW)			
Date: 7/18/2013								
Unit:	Sewaren	1	1					
	12:00:00 AM	1.00	24.0	16.1	0.047	342.9	0.0	
	1:00:00 AM	1.00	24.0	16.3	0.047	346.0	0.0	
	2:00:00 AM	1.00	25.0	16.2	0.047	345.7	0.0	
	3:00:00 AM	1.00	24.0	16.2	0.047	345.7	0.0	
	4:00:00 AM	1.00	24.0	16.3	0.047	346.0	0.0	
	5:00:00 AM	1.00	24.0	16.2	0.047	345.5	0.0	
	6:00:00 AM	1.00	32.0	21.7	0.05	434.0	0.0	
	7:00:00 AM	1.00	65.0	50.6	0.066	767.3	0.0	
	8:00:00 AM	1.00	64.0	47.1	0.064	736.6	0.0	
	9:00:00 AM	1.00	43.0	29.1	0.055	528.2	0.0	
	10:00:00 AM	1.00	56.0	40.7	0.061	666.4	0.0	
	11:00:00 AM	1.00	88.0	76.6	0.076	1,008.5	0.0	
	12:00:00 PM	1.00	107.0	85.9	0.072	1,193.6	0.0	
	1:00:00 PM	1.00	96.0	78.9	0.075	1,052.6	0.0	
	2:00:00 PM	1.00	90.0	76.6	0.077	994.7	0.0	
	3:00:00 PM	1.00	106.0	84.7	0.073	1,160.1	0.0	
	4:00:00 PM	1.00	107.0	85.4	0.072	1,185.9	0.0	
	5:00:00 PM	1.00	107.0	85.2	0.072	1,183.1	0.0	
	6:00:00 PM	1.00	107.0	85.2	0.072	1,183.7	0.0	
	7:00:00 PM	1.00	107.0	85.7	0.072	1,189.8	0.0	
	8:00:00 PM	1.00	107.0	85.9	0.072	1,193.0	0.0	
	9:00:00 PM	1.00	94.0	78.4	0.076	1,031.1	0.0	
	10:00:00 PM	1.00	29.0	16.9	0.047	360.5	0.0	
	11:00:00 PM	1.00	25.0	16.3	0.047	347.8	0.0	
Sewaren	1	Total	24.00	1,575.0	1,228.2	0.062	18,288.7	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time (hrs)</i>	<i>Load (MW)</i>	<i>NOx Emissions Mass (lbs)</i>	<i>NOx Emission Rate (lb/MMBtu)</i>	<i>Natural Gas Heat Input (MMBtu)</i>	<i>Oil Heat Input (MMBtu)</i>
Date: 7/18/2013								
Unit:	Sewaren	2	2					
	12:00:00 AM		1.00	26.0	11.2	0.034	328.6	0.0
	1:00:00 AM		1.00	25.0	11.2	0.034	328.5	0.0
	2:00:00 AM		1.00	25.0	11.2	0.034	328.5	0.0
	3:00:00 AM		1.00	25.0	11.2	0.034	328.4	0.0
	4:00:00 AM		1.00	25.0	11.2	0.034	328.6	0.0
	5:00:00 AM		1.00	25.0	11.2	0.034	328.7	0.0
	6:00:00 AM		1.00	33.0	19.2	0.047	409.0	0.0
	7:00:00 AM		1.00	63.0	50.9	0.074	687.7	0.0
	8:00:00 AM		1.00	70.0	54.2	0.073	742.3	0.0
	9:00:00 AM		1.00	48.0	36.3	0.068	533.6	0.0
	10:00:00 AM		1.00	66.0	52.2	0.074	704.8	0.0
	11:00:00 AM		1.00	87.0	65.3	0.072	906.5	0.0
	12:00:00 PM		1.00	92.0	67.3	0.071	948.3	0.0
	1:00:00 PM		1.00	80.0	59.8	0.073	819.0	0.0
	2:00:00 PM		1.00	81.0	61.1	0.072	848.4	0.0
	3:00:00 PM		1.00	92.0	67.7	0.072	940.2	0.0
	4:00:00 PM		1.00	100.0	73.0	0.072	1,014.3	0.0
	5:00:00 PM		1.00	108.0	80.9	0.075	1,078.5	0.0
	6:00:00 PM		1.00	108.0	82.3	0.076	1,083.0	0.0
	7:00:00 PM		1.00	109.0	82.7	0.076	1,088.1	0.0
	8:00:00 PM		1.00	108.0	82.3	0.076	1,083.5	0.0
	9:00:00 PM		1.00	79.0	58.3	0.073	798.6	0.0
	10:00:00 PM		1.00	26.0	9.6	0.031	310.9	0.0
	11:00:00 PM		1.00	30.0	15.2	0.041	371.3	0.0
Sewaren	2	Total	24.00	1,531.0	1,085.5	0.059	16,339.3	0.0
7/18/2013	Total		360.17	15,232.0	37,207.6	0.262	168,627.7	6,939.3

Date: 7/19/2013

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
				<i>Run Time</i>	<i>Load</i>		
				<i>(hrs)</i>	<i>(MW)</i>		
Date: 7/19/2013							
Unit:	Bergen	3	3001				
	11:00:00 AM	1.00	12.0	140.9	0.7	201.3	0.0
	12:00:00 PM	1.00	14.0	164.4	0.7	234.9	0.0
	1:00:00 PM	1.00	14.0	164.4	0.7	234.9	0.0
	2:00:00 PM	1.00	14.0	164.4	0.7	234.9	0.0
	3:00:00 PM	1.00	14.0	164.4	0.7	234.9	0.0
	4:00:00 PM	1.00	14.0	164.4	0.7	234.9	0.0
	5:00:00 PM	1.00	14.0	164.4	0.7	234.9	0.0
	6:00:00 PM	1.00	14.0	164.4	0.7	234.9	0.0
	7:00:00 PM	1.00	15.0	176.2	0.7	251.7	0.0
	8:00:00 PM	1.00	6.0	70.5	0.7	100.7	0.0
Bergen	3	Total	10.00	131.0	1,538.4	0.700	2,198.0
Unit:	Burlington	121	121				
	7:00:00 AM	0.87	37.0	26.4	0.086	306.8	0.0
	8:00:00 AM	1.00	40.0	31.4	0.084	374.4	0.0
	9:00:00 AM	1.00	40.0	31.0	0.083	374.0	0.0
	10:00:00 AM	1.00	40.0	31.9	0.085	375.1	0.0
	11:00:00 AM	1.00	40.0	31.8	0.085	374.5	0.0
	12:00:00 PM	1.00	40.0	31.8	0.085	374.5	0.0
	1:00:00 PM	1.00	39.0	31.7	0.085	373.0	0.0
	2:00:00 PM	1.00	39.0	33.9	0.091	372.3	0.0
	3:00:00 PM	1.00	39.0	33.5	0.09	372.0	0.0
	4:00:00 PM	1.00	39.0	33.3	0.09	370.5	0.0
	5:00:00 PM	1.00	39.0	33.3	0.09	370.2	0.0
	6:00:00 PM	1.00	39.0	33.8	0.091	371.5	0.0
	7:00:00 PM	1.00	40.0	31.8	0.085	373.9	0.0
	8:00:00 PM	0.95	36.0	29.9	0.091	329.0	0.0
Burlington	121	Total	13.82	547.0	445.5	0.087	5,111.7

* Only hours in which a unit operated are listed.

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			<i>Run Time</i> <i>(hrs)</i>	<i>Load</i> <i>(MW)</i>	<i>NOx Emissions</i> <i>Mass</i> <i>(lbs)</i>	<i>NOx Emission</i> <i>Rate</i> <i>(lb/MMBtu)</i>	<i>Natural Gas</i> <i>Heat Input</i> <i>(MMBtu)</i>	<i>Oil Heat Input</i> <i>(MMBtu)</i>
Date: 7/19/2013								
Unit:	Burlington	122	122					
	7:00:00 AM		0.87	38.0	28.8	0.087	330.5	0.0
	8:00:00 AM		1.00	41.0	31.8	0.079	402.7	0.0
	9:00:00 AM		1.00	41.0	31.9	0.079	403.8	0.0
	10:00:00 AM		1.00	41.0	32.5	0.08	405.9	0.0
	11:00:00 AM		1.00	41.0	32.5	0.08	405.8	0.0
	12:00:00 PM		1.00	41.0	32.4	0.08	405.3	0.0
	1:00:00 PM		1.00	41.0	32.2	0.08	403.1	0.0
	2:00:00 PM		1.00	41.0	33.1	0.082	403.4	0.0
	3:00:00 PM		1.00	41.0	33.4	0.083	402.8	0.0
	4:00:00 PM		1.00	41.0	32.6	0.081	402.0	0.0
	5:00:00 PM		1.00	41.0	33.0	0.082	402.1	0.0
	6:00:00 PM		1.00	41.0	33.9	0.084	404.0	0.0
	7:00:00 PM		1.00	41.0	35.8	0.088	406.8	0.0
	8:00:00 PM		0.95	37.0	32.3	0.091	355.2	0.0
<u>Burlington</u>	<u>122</u>	<u>Total</u>	13.82	567.0	456.2	0.083	5,533.4	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time</i> <i>(hrs)</i>	<i>Load</i> <i>(MW)</i>	<i>NOx Emissions</i> <i>Mass</i> <i>(lbs)</i>	<i>NOx Emission</i> <i>Rate</i> <i>(lb/MMBtu)</i>	<i>Natural Gas</i> <i>Heat Input</i> <i>(MMBtu)</i>	<i>Oil Heat Input</i> <i>(MMBtu)</i>
Date: 7/19/2013								
Unit:	Burlington	123	123					
	7:00:00 AM		0.85	37.0	27.4	0.088	311.0	0.0
	8:00:00 AM		1.00	40.0	31.4	0.081	388.2	0.0
	9:00:00 AM		1.00	40.0	31.4	0.081	387.1	0.0
	10:00:00 AM		1.00	39.0	31.8	0.082	387.7	0.0
	11:00:00 AM		1.00	39.0	31.3	0.081	385.9	0.0
	12:00:00 PM		1.00	39.0	31.6	0.082	385.6	0.0
	1:00:00 PM		1.00	39.0	31.5	0.082	383.7	0.0
	2:00:00 PM		1.00	39.0	32.3	0.084	384.5	0.0
	3:00:00 PM		1.00	39.0	32.7	0.085	384.4	0.0
	4:00:00 PM		1.00	39.0	32.2	0.084	383.7	0.0
	5:00:00 PM		1.00	39.0	32.7	0.085	384.3	0.0
	6:00:00 PM		1.00	39.0	33.2	0.086	386.0	0.0
	7:00:00 PM		1.00	40.0	34.2	0.088	388.1	0.0
	8:00:00 PM		0.93	36.0	31.8	0.095	335.1	0.0
<u>Burlington</u>	<u>123</u>	<u>Total</u>	13.78	544.0	445.5	0.085	5,275.3	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
				<i>Run Time</i>	<i>Load</i>		
				<i>(hrs)</i>	<i>(MW)</i>		
Date: 7/19/2013							
Unit:	Burlington	124	124				
	7:00:00 AM	0.85	38.0	27.3	0.09	302.9	0.0
	8:00:00 AM	1.00	42.0	31.2	0.082	380.9	0.0
	9:00:00 AM	1.00	42.0	29.7	0.078	380.4	0.0
	10:00:00 AM	1.00	42.0	30.2	0.079	381.8	0.0
	11:00:00 AM	1.00	42.0	30.6	0.08	382.3	0.0
	12:00:00 PM	1.00	42.0	30.6	0.08	382.3	0.0
	1:00:00 PM	1.00	42.0	30.5	0.08	380.9	0.0
	2:00:00 PM	1.00	42.0	32.0	0.084	380.5	0.0
	3:00:00 PM	1.00	42.0	31.6	0.083	380.7	0.0
	4:00:00 PM	1.00	42.0	30.8	0.081	379.9	0.0
	5:00:00 PM	1.00	41.0	31.5	0.084	374.9	0.0
	6:00:00 PM	1.00	40.0	30.1	0.082	366.6	0.0
	7:00:00 PM	1.00	40.0	29.7	0.081	366.8	0.0
	8:00:00 PM	0.93	36.0	27.6	0.087	317.2	0.0
<u>Burlington</u>	<u>124</u>	<u>Total</u>	13.78	573.0	0.082	5,158.2	0.0
Unit:	Burlington	91 A/B	12001				
	12:00:00 PM	1.00	33.0	280.4	0.54	0.0	519.3
	1:00:00 PM	1.00	16.0	136.0	0.54	0.0	251.8
	2:00:00 PM	1.00	19.0	161.5	0.54	0.0	299.0
	3:00:00 PM	1.00	10.0	85.0	0.54	0.0	157.4
<u>Burlington</u>	<u>91 A/B</u>	<u>Total</u>	4.00	78.0	0.540	0.0	1,227.5
Unit:	Burlington	92 A/B	14001				
	12:00:00 PM	1.00	23.0	195.4	0.54	0.0	361.9
	1:00:00 PM	1.00	38.0	322.9	0.54	0.0	597.9
	2:00:00 PM	1.00	38.0	322.9	0.54	0.0	597.9
	3:00:00 PM	1.00	38.0	322.9	0.54	0.0	597.9
	4:00:00 PM	1.00	34.0	288.9	0.54	0.0	535.0
<u>Burlington</u>	<u>92 A/B</u>	<u>Total</u>	5.00	171.0	0.540	0.0	2,690.6

* Only hours in which a unit operated are listed.

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				NOx Emissions	NOx Emission	Natural Gas	Oil Heat Input
				Mass	Rate	Heat Input	
				(lbs)	(lb/MMBtu)	(MMBtu)	(MMBtu)
<hr/>							
Date: 7/19/2013							
Unit:	Burlington	93 A/B	16001				
	12:00:00 PM	1.00	18.0	152.9	0.54	0.0	283.2
	1:00:00 PM	1.00	38.0	322.9	0.54	0.0	597.9
	2:00:00 PM	1.00	38.0	322.9	0.54	0.0	597.9
	3:00:00 PM	1.00	27.0	229.4	0.54	0.0	424.9
	4:00:00 PM	1.00	32.0	271.9	0.54	0.0	503.5
<u>Burlington</u>	<u>93 A/B</u>	<u>Total</u>	5.00	153.0	1,300.0	0.540	2,407.4
Unit:	Burlington	112 A/B	30001				
	12:00:00 PM	1.00	33.0	280.4	0.54	0.0	519.3
	1:00:00 PM	1.00	34.0	288.9	0.54	0.0	535.0
	2:00:00 PM	1.00	34.0	288.9	0.54	0.0	535.0
	3:00:00 PM	1.00	34.0	288.9	0.54	0.0	535.0
	4:00:00 PM	1.00	31.0	263.4	0.54	0.0	487.8
<u>Burlington</u>	<u>112 A/B</u>	<u>Total</u>	5.00	166.0	1,410.5	0.540	2,612.1
Unit:	Burlington	113 A/B	32001				
	12:00:00 PM	1.00	32.0	271.9	0.54	0.0	503.5
	1:00:00 PM	1.00	18.0	152.9	0.54	0.0	283.2
	2:00:00 PM	1.00	14.0	119.0	0.54	0.0	220.3
	3:00:00 PM	1.00	15.0	127.4	0.54	0.0	236.0
	4:00:00 PM	1.00	13.0	110.5	0.54	0.0	204.6
<u>Burlington</u>	<u>113 A/B</u>	<u>Total</u>	5.00	92.0	781.7	0.540	1,447.6
Unit:	Burlington	114 A/B	34001				
	12:00:00 PM	1.00	29.0	246.4	0.54	0.0	456.3
	1:00:00 PM	1.00	32.0	271.9	0.54	0.0	503.5
	2:00:00 PM	1.00	32.0	271.9	0.54	0.0	503.5
	3:00:00 PM	1.00	32.0	271.9	0.54	0.0	503.5
	4:00:00 PM	1.00	30.0	254.9	0.54	0.0	472.1
<u>Burlington</u>	<u>114 A/B</u>	<u>Total</u>	5.00	155.0	1,317.0	0.540	2,438.9

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>Load</i>						
<i>(hrs)</i>	<i>(MW)</i>						
Date: 7/19/2013							
Unit:	Edison	11 A/B	1001				
	10:00:00 AM	1.00	1.0	6.4	0.42	15.2	0.0
	11:00:00 AM	1.00	32.0	340.1	0.7	485.9	0.0
	12:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	1:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	2:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	3:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	4:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	5:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	6:00:00 PM	1.00	15.0	95.7	0.42	227.8	0.0
Edison	11 A/B	Total	9.00	242.0	1,679.6	0.451	3,674.7
Unit:	Edison	12 A/B	3001				
	10:00:00 AM	1.00	1.0	10.6	0.7	15.2	0.0
	11:00:00 AM	1.00	34.0	361.4	0.7	516.3	0.0
	12:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	1:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	2:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	3:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	4:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	5:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	6:00:00 PM	1.00	16.0	102.1	0.42	243.0	0.0
Edison	12 A/B	Total	9.00	248.0	1,730.7	0.482	3,765.9

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>Load</i>						
<i>(hrs)</i>	<i>(MW)</i>						
Date: 7/19/2013							
Unit:	Edison	13 A/B	5001				
	10:00:00 AM	1.00	1.0	6.4	0.42	15.2	0.0
	11:00:00 AM	1.00	28.0	297.6	0.7	425.2	0.0
	12:00:00 PM	1.00	28.0	178.6	0.42	425.2	0.0
	1:00:00 PM	1.00	28.0	178.6	0.42	425.2	0.0
	2:00:00 PM	1.00	27.0	172.2	0.42	410.0	0.0
	3:00:00 PM	1.00	27.0	172.2	0.42	410.0	0.0
	4:00:00 PM	1.00	27.0	172.2	0.42	410.0	0.0
	5:00:00 PM	1.00	28.0	178.6	0.42	425.2	0.0
	6:00:00 PM	1.00	10.0	63.8	0.42	151.9	0.0
Edison	13 A/B	Total	9.00	204.0	1,420.2	0.451	3,097.9
Unit:	Edison	14 A/B	7001				
	10:00:00 AM	1.00	1.0	10.6	0.7	15.2	0.0
	11:00:00 AM	1.00	34.0	361.4	0.7	516.3	0.0
	12:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	1:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	2:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	3:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	4:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	5:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	6:00:00 PM	1.00	12.0	76.5	0.42	182.2	0.0
Edison	14 A/B	Total	9.00	251.0	1,749.3	0.482	3,811.5

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
	<i>Run Time</i>	<i>Load</i>					
	<i>(hrs)</i>	<i>(MW)</i>					
Date: 7/19/2013							
Unit:	Edison	21 A/B	9001				
	11:00:00 AM	1.00	29.0	185.0	0.42	440.4	0.0
	12:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	1:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	2:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	3:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	4:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	5:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	6:00:00 PM	1.00	12.0	76.5	0.42	182.2	0.0
Edison	21 A/B	Total	8.00	229.0	1,460.5	0.420	3,477.6
Unit:	Edison	22 A/B	11001				
	11:00:00 AM	1.00	32.0	204.1	0.42	485.9	0.0
	12:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	1:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	2:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	3:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	4:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	5:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	6:00:00 PM	1.00	16.0	102.1	0.42	243.0	0.0
Edison	22 A/B	Total	8.00	243.0	1,550.0	0.420	3,689.9
Unit:	Edison	23 A/B	13001				
	11:00:00 AM	1.00	33.0	210.5	0.42	501.1	0.0
	12:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	1:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	2:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	3:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	4:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	5:00:00 PM	1.00	34.0	216.8	0.42	516.3	0.0
	6:00:00 PM	1.00	16.0	102.1	0.42	243.0	0.0
Edison	23 A/B	Total	8.00	252.0	1,607.1	0.420	3,826.7

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
	<i>Run Time</i>	<i>Load</i>					
	<i>(hrs)</i>	<i>(MW)</i>					
Date: 7/19/2013							
Unit:	Edison	24 A/B	15001				
	11:00:00 AM	1.00	32.0	204.1	0.42	485.9	0.0
	12:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	1:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	2:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	3:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	4:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	5:00:00 PM	1.00	33.0	210.5	0.42	501.1	0.0
	6:00:00 PM	1.00	12.0	76.5	0.42	182.2	0.0
Edison	24 A/B	Total	8.00	241.0	1,537.2	0.420	3,659.5
Unit:	Edison	31 A/B	17001				
	11:00:00 AM	1.00	25.0	159.4	0.42	379.6	0.0
	12:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	1:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	2:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	3:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	4:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	5:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	6:00:00 PM	1.00	11.0	70.1	0.42	167.0	0.0
Edison	31 A/B	Total	8.00	227.0	1,447.7	0.420	3,446.9
Unit:	Edison	32 A/B	19001				
	11:00:00 AM	1.00	26.0	165.8	0.42	394.8	0.0
	12:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	1:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	2:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	3:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	4:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	5:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	6:00:00 PM	1.00	14.0	89.3	0.42	212.6	0.0
Edison	32 A/B	Total	8.00	231.0	1,473.3	0.420	3,507.7

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
	<i>Run Time</i>	<i>Load</i>					
	<i>(hrs)</i>	<i>(MW)</i>					
Date: 7/19/2013							
Unit:	Edison	33 A/B	21001				
	11:00:00 AM	1.00	26.0	165.8	0.42	394.8	0.0
	12:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	1:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	2:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	3:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	4:00:00 PM	1.00	31.0	197.7	0.42	470.8	0.0
	5:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	6:00:00 PM	1.00	15.0	95.7	0.42	227.8	0.0
Edison	33 A/B	Total	8.00	229.0	1,460.5	0.420	3,477.6
Unit:	Edison	34 A/B	23001				
	11:00:00 AM	1.00	27.0	172.2	0.42	410.0	0.0
	12:00:00 PM	1.00	32.0	204.1	0.42	485.9	0.0
	1:00:00 PM	1.00	1.0	6.4	0.42	15.2	0.0
Edison	34 A/B	Total	3.00	60.0	382.7	0.420	911.1
Unit:	Essex	101 A/B	2001				
	10:00:00 AM	1.00	1.0	10.9	0.7	15.6	0.0
	11:00:00 AM	1.00	32.0	349.7	0.7	499.6	0.0
	12:00:00 PM	1.00	32.0	349.7	0.7	499.6	0.0
	1:00:00 PM	1.00	32.0	349.7	0.7	499.6	0.0
	2:00:00 PM	1.00	32.0	349.7	0.7	499.6	0.0
	3:00:00 PM	1.00	32.0	349.7	0.7	499.6	0.0
	4:00:00 PM	1.00	32.0	349.7	0.7	499.6	0.0
	5:00:00 PM	1.00	32.0	349.7	0.7	499.6	0.0
	6:00:00 PM	1.00	32.0	349.7	0.7	499.6	0.0
	7:00:00 PM	1.00	32.0	349.7	0.7	499.6	0.0
	8:00:00 PM	1.00	12.0	131.2	0.7	187.4	0.0
Essex	101 A/B	Total	11.00	301.0	3,289.4	0.700	4,699.4

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>	
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>Heat Input</i>	
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	<i>(MMBtu)</i>	
Date: 7/19/2013								
Unit:	Essex	102 A/B	4001					
		10:00:00 AM	1.00	1.0	10.9	0.7	15.6	0.0
		11:00:00 AM	1.00	29.0	317.0	0.7	452.8	0.0
		12:00:00 PM	1.00	29.0	317.0	0.7	452.8	0.0
		1:00:00 PM	1.00	28.0	306.0	0.7	437.2	0.0
		2:00:00 PM	1.00	28.0	306.0	0.7	437.2	0.0
		3:00:00 PM	1.00	28.0	306.0	0.7	437.2	0.0
		4:00:00 PM	1.00	28.0	306.0	0.7	437.2	0.0
		5:00:00 PM	1.00	28.0	306.0	0.7	437.2	0.0
		6:00:00 PM	1.00	27.0	295.1	0.7	421.6	0.0
		7:00:00 PM	1.00	29.0	317.0	0.7	452.8	0.0
		8:00:00 PM	1.00	11.0	120.2	0.7	171.7	0.0
Essex	102 A/B	Total	11.00	266.0	2,907.2	0.700	4,153.3	0.0
Unit:	Essex	103 A/B	10001					
		10:00:00 AM	1.00	2.0	21.8	0.7	31.2	0.0
		11:00:00 AM	1.00	12.0	131.2	0.7	187.4	0.0
		12:00:00 PM	1.00	12.0	131.2	0.7	187.4	0.0
		1:00:00 PM	1.00	12.0	131.2	0.7	187.4	0.0
		2:00:00 PM	1.00	12.0	131.2	0.7	187.4	0.0
		3:00:00 PM	1.00	12.0	131.2	0.7	187.4	0.0
		4:00:00 PM	1.00	12.0	131.2	0.7	187.4	0.0
		5:00:00 PM	1.00	11.0	120.2	0.7	171.7	0.0
		6:00:00 PM	1.00	9.0	98.4	0.7	140.5	0.0
		7:00:00 PM	1.00	10.0	109.3	0.7	156.1	0.0
		8:00:00 PM	1.00	1.0	10.9	0.7	15.6	0.0
Essex	103 A/B	Total	11.00	105.0	1,147.8	0.700	1,639.5	0.0

* Only hours in which a unit operated are listed.

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				NOx Emissions	NOx Emission	Natural Gas	Oil Heat Input	
				Mass	Rate	Heat Input		
				(lbs)	(lb/MMBtu)	(MMBtu)	(MMBtu)	
				Run Time	Load			
				(hrs)	(MW)			
Date: 7/19/2013								
Unit:	Essex	104 A/B	12001					
		10:00:00 AM	1.00	2.0	21.8	0.7	31.2	0.0
		11:00:00 AM	1.00	27.0	295.1	0.7	421.6	0.0
		12:00:00 PM	1.00	23.0	251.4	0.7	359.1	0.0
		1:00:00 PM	1.00	31.0	338.8	0.7	484.0	0.0
		2:00:00 PM	1.00	30.0	327.9	0.7	468.4	0.0
		3:00:00 PM	1.00	12.0	131.2	0.7	187.4	0.0
Essex	104 A/B	Total	6.00	125.0	1,366.2	0.700	1,951.7	0.0
Unit:	Essex	9	35001					
		8:00:00 AM	0.23	68.0	5.5	0.092	60.2	0.0
		9:00:00 AM	1.00	71.0	46.2	0.067	690.0	0.0
		10:00:00 AM	1.00	71.0	47.9	0.07	684.1	0.0
		11:00:00 AM	1.00	70.0	48.9	0.072	679.1	0.0
		12:00:00 PM	1.00	70.0	49.3	0.073	675.5	0.0
		1:00:00 PM	1.00	70.0	49.2	0.073	674.0	0.0
		2:00:00 PM	1.00	70.0	49.1	0.073	672.4	0.0
		3:00:00 PM	1.00	70.0	49.8	0.074	672.9	0.0
		4:00:00 PM	1.00	70.0	49.8	0.074	673.2	0.0
		5:00:00 PM	1.00	70.0	50.3	0.075	670.4	0.0
		6:00:00 PM	1.00	70.0	49.3	0.073	675.0	0.0
		7:00:00 PM	0.45	59.0	17.6	0.073	241.6	0.0
Essex	9	Total	10.68	829.0	513.0	0.074	7,068.4	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time</i> <i>(hrs)</i>	<i>Load</i> <i>(MW)</i>	<i>NOx Emissions</i> <i>Mass</i> <i>(lbs)</i>	<i>NOx Emission</i> <i>Rate</i> <i>(lb/MMBtu)</i>	<i>Natural Gas</i> <i>Heat Input</i> <i>(MMBtu)</i>	<i>Oil Heat Input</i> <i>(MMBtu)</i>
Date: 7/19/2013								
Unit:	Kearny	121	121					
		6:00:00 AM	0.95	38.0	27.2	0.081	335.0	0.0
		7:00:00 AM	1.00	42.0	30.3	0.08	378.9	0.0
		8:00:00 AM	1.00	41.0	29.3	0.078	376.2	0.0
		9:00:00 AM	1.00	41.0	30.1	0.081	371.7	0.0
		10:00:00 AM	0.42	24.0	12.7	0.119	107.0	0.0
		11:00:00 AM	0.58	35.0	18.6	0.096	194.0	0.0
		12:00:00 PM	1.00	39.0	30.2	0.083	363.6	0.0
		1:00:00 PM	1.00	39.0	30.1	0.083	363.2	0.0
		2:00:00 PM	1.00	40.0	30.7	0.084	365.5	0.0
		3:00:00 PM	1.00	40.0	30.5	0.083	367.8	0.0
		4:00:00 PM	1.00	40.0	30.2	0.082	368.7	0.0
		5:00:00 PM	1.00	41.0	30.0	0.081	370.5	0.0
		6:00:00 PM	1.00	41.0	30.1	0.081	371.9	0.0
		7:00:00 PM	1.00	41.0	30.2	0.081	372.8	0.0
		8:00:00 PM	1.00	41.0	30.7	0.082	374.4	0.0
		9:00:00 PM	0.87	37.0	26.2	0.088	298.0	0.0
<u>Kearny</u>	<u>121</u>	<u>Total</u>	14.82	620.0	447.1	0.085	5,379.2	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time</i> <i>(hrs)</i>	<i>Load</i> <i>(MW)</i>	<i>NOx Emissions</i> <i>Mass</i> <i>(lbs)</i>	<i>NOx Emission</i> <i>Rate</i> <i>(lb/MMBtu)</i>	<i>Natural Gas</i> <i>Heat Input</i> <i>(MMBtu)</i>	<i>Oil Heat Input</i> <i>(MMBtu)</i>
Date: 7/19/2013								
Unit:	Kearny	122	122					
		6:00:00 AM	0.92	39.0	30.0	0.081	370.3	0.0
		7:00:00 AM	1.00	42.0	32.8	0.077	426.4	0.0
		8:00:00 AM	1.00	42.0	33.0	0.078	423.5	0.0
		9:00:00 AM	1.00	41.0	31.7	0.075	422.2	0.0
		10:00:00 AM	0.42	24.0	13.6	0.113	120.1	0.0
		11:00:00 AM	0.58	37.0	19.5	0.087	224.4	0.0
		12:00:00 PM	1.00	41.0	33.0	0.079	418.1	0.0
		1:00:00 PM	1.00	41.0	33.0	0.079	418.2	0.0
		2:00:00 PM	1.00	41.0	33.0	0.079	417.6	0.0
		3:00:00 PM	1.00	41.0	33.9	0.081	418.5	0.0
		4:00:00 PM	1.00	41.0	34.0	0.081	419.6	0.0
		5:00:00 PM	1.00	42.0	32.9	0.078	421.5	0.0
		6:00:00 PM	1.00	42.0	33.0	0.078	422.7	0.0
		7:00:00 PM	1.00	42.0	32.6	0.077	423.0	0.0
		8:00:00 PM	1.00	42.0	33.1	0.078	424.5	0.0
		9:00:00 PM	0.87	37.0	27.5	0.082	335.7	0.0
<u>Kearny</u>	<u>122</u>	<u>Total</u>	14.79	635.0	486.6	0.081	6,106.3	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time</i> <i>(hrs)</i>	<i>Load</i> <i>(MW)</i>	<i>NOx Emissions</i> <i>Mass</i> <i>(lbs)</i>	<i>NOx Emission</i> <i>Rate</i> <i>(lb/MMBtu)</i>	<i>Natural Gas</i> <i>Heat Input</i> <i>(MMBtu)</i>	<i>Oil Heat Input</i> <i>(MMBtu)</i>
Date: 7/19/2013								
Unit:	Kearny	123	123					
		6:00:00 AM	0.85	28.0	29.8	0.106	281.4	0.0
		7:00:00 AM	1.00	36.0	28.9	0.073	395.5	0.0
		8:00:00 AM	1.00	36.0	29.4	0.074	397.4	0.0
		9:00:00 AM	1.00	36.0	30.6	0.077	397.1	0.0
		10:00:00 AM	0.42	23.0	14.1	0.116	121.4	0.0
		11:00:00 AM	0.58	33.0	16.8	0.079	212.0	0.0
		12:00:00 PM	1.00	36.0	31.2	0.079	394.9	0.0
		1:00:00 PM	1.00	36.0	30.5	0.077	396.2	0.0
		2:00:00 PM	1.00	36.0	30.5	0.077	396.2	0.0
		3:00:00 PM	1.00	36.0	31.3	0.079	395.9	0.0
		4:00:00 PM	1.00	37.0	30.9	0.078	396.2	0.0
		5:00:00 PM	1.00	36.0	29.1	0.074	393.6	0.0
		6:00:00 PM	1.00	36.0	28.3	0.072	393.5	0.0
		7:00:00 PM	1.00	36.0	27.5	0.07	392.6	0.0
		8:00:00 PM	1.00	36.0	28.0	0.071	394.4	0.0
		9:00:00 PM	0.38	26.0	11.1	0.092	120.7	0.0
<u>Kearny</u>	<u>123</u>	<u>Total</u>	14.23	543.0	428.0	0.081	5,478.9	0.0

* Only hours in which a unit operated are listed.

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				NOx Emissions	NOx Emission	Natural Gas	Oil Heat Input	
				Mass	Rate	Heat Input		
				(lbs)	(lb/MMBtu)	(MMBtu)	(MMBtu)	
				Run Time	Load			
				(hrs)	(MW)			
Date: 7/19/2013								
Unit:	Kearny	124	124					
	7:00:00 AM	0.90	40.0	26.4	0.079	334.1	0.0	
	8:00:00 AM	1.00	43.0	30.1	0.077	391.1	0.0	
	9:00:00 AM	1.00	43.0	30.9	0.079	391.0	0.0	
	10:00:00 AM	1.00	42.0	31.2	0.08	389.8	0.0	
	11:00:00 AM	0.42	25.0	13.7	0.12	114.5	0.0	
	12:00:00 PM	0.58	37.0	17.5	0.085	205.3	0.0	
	1:00:00 PM	1.00	42.0	29.5	0.077	383.0	0.0	
	2:00:00 PM	1.00	41.0	30.2	0.079	381.8	0.0	
	3:00:00 PM	1.00	41.0	29.8	0.078	381.9	0.0	
	4:00:00 PM	1.00	41.0	30.2	0.079	381.8	0.0	
	5:00:00 PM	1.00	42.0	29.9	0.078	382.9	0.0	
	6:00:00 PM	1.00	42.0	29.2	0.076	383.9	0.0	
	7:00:00 PM	1.00	42.0	28.2	0.073	385.8	0.0	
	8:00:00 PM	1.00	42.0	27.5	0.071	387.2	0.0	
	9:00:00 PM	1.00	42.0	28.5	0.073	391.0	0.0	
	10:00:00 PM	0.38	31.0	10.7	0.091	117.8	0.0	
Kearny	124	Total	14.28	636.0	423.5	0.081	5,402.9	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time</i> <i>(hrs)</i>	<i>Load</i> <i>(MW)</i>	<i>NOx Emissions</i> <i>Mass</i> <i>(lbs)</i>	<i>NOx Emission</i> <i>Rate</i> <i>(lb/MMBtu)</i>	<i>Natural Gas</i> <i>Heat Input</i> <i>(MMBtu)</i>	<i>Oil Heat Input</i> <i>(MMBtu)</i>
Date: 7/19/2013								
Unit:	Linden	5	5					
		9:00:00 AM	0.98	57.0	51.7	0.05	1,034.4	0.0
		10:00:00 AM	1.00	73.0	27.5	0.034	807.5	0.0
		11:00:00 AM	1.00	73.0	26.6	0.033	806.1	0.0
		12:00:00 PM	1.00	73.0	27.4	0.034	804.8	0.0
		1:00:00 PM	1.00	73.0	27.2	0.034	801.0	0.0
		2:00:00 PM	1.00	73.0	27.2	0.034	800.5	0.0
		3:00:00 PM	1.00	73.0	27.2	0.034	798.6	0.0
		4:00:00 PM	1.00	72.0	27.1	0.034	797.3	0.0
		5:00:00 PM	1.00	72.0	27.0	0.034	794.3	0.0
		6:00:00 PM	1.00	72.0	26.3	0.033	797.6	0.0
		7:00:00 PM	1.00	72.0	26.3	0.033	797.2	0.0
		8:00:00 PM	1.00	72.0	26.3	0.033	796.2	0.0
		9:00:00 PM	1.00	61.0	33.3	0.048	694.5	0.0
		10:00:00 PM	0.03	1.0	0.1	0.062	2.0	0.0
<u>Linden</u>	<u>5</u>	<u>Total</u>	13.01	917.0	381.3	0.038	10,532.0	0.0

* Only hours in which a unit operated are listed.

Monday, December 09, 2013

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			<i>Run Time</i> <i>(hrs)</i>	<i>Load</i> <i>(MW)</i>	<i>NOx Emissions</i> <i>Mass</i> <i>(lbs)</i>	<i>NOx Emission</i> <i>Rate</i> <i>(lb/MMBtu)</i>	<i>Natural Gas</i> <i>Heat Input</i> <i>(MMBtu)</i>	<i>Oil Heat Input</i> <i>(MMBtu)</i>
Date: 7/19/2013								
Unit:	Linden	6	6					
		9:00:00 AM	0.97	60.0	36.9	0.049	752.3	0.0
		10:00:00 AM	1.00	75.0	25.6	0.028	914.8	0.0
		11:00:00 AM	1.00	75.0	25.6	0.028	915.6	0.0
		12:00:00 PM	1.00	75.0	26.5	0.029	914.7	0.0
		1:00:00 PM	1.00	75.0	26.5	0.029	915.4	0.0
		2:00:00 PM	1.00	75.0	26.5	0.029	914.3	0.0
		3:00:00 PM	1.00	75.0	27.4	0.03	914.9	0.0
		4:00:00 PM	1.00	75.0	26.5	0.029	912.3	0.0
		5:00:00 PM	1.00	75.0	26.4	0.029	909.2	0.0
		6:00:00 PM	1.00	75.0	26.4	0.029	909.3	0.0
		7:00:00 PM	1.00	75.0	27.3	0.03	910.4	0.0
		8:00:00 PM	1.00	75.0	26.4	0.029	910.4	0.0
		9:00:00 PM	1.00	63.0	33.2	0.042	789.4	0.0
		10:00:00 PM	0.05	1.0	0.3	0.063	4.1	0.0
<u>Linden</u>	<u>6</u>	<u>Total</u>	13.02	949.0	361.4	0.034	11,587.2	0.0

* Only hours in which a unit operated are listed.

Monday, December 09, 2013

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			<i>Run Time (hrs)</i>	<i>Load (MW)</i>	<i>NOx Emissions Mass (lbs)</i>	<i>NOx Emission Rate (lb/MMBtu)</i>	<i>Natural Gas Heat Input (MMBtu)</i>	<i>Oil Heat Input (MMBtu)</i>
Date: 7/19/2013								
Unit:	Linden	7	7					
		8:00:00 AM	0.17	3.0	3.4	0.089	38.2	0.0
		9:00:00 AM	1.00	67.0	41.5	0.047	883.3	0.0
		10:00:00 AM	1.00	70.0	27.3	0.03	908.5	0.0
		11:00:00 AM	1.00	70.0	27.2	0.03	905.3	0.0
		12:00:00 PM	1.00	70.0	28.0	0.031	904.1	0.0
		1:00:00 PM	1.00	70.0	27.9	0.031	901.4	0.0
		2:00:00 PM	0.98	70.0	27.3	0.031	880.7	0.0
		3:00:00 PM	1.00	70.0	28.8	0.032	901.1	0.0
		4:00:00 PM	0.97	70.0	27.9	0.032	873.5	0.0
		5:00:00 PM	0.93	70.0	26.8	0.032	838.3	0.0
		6:00:00 PM	1.00	70.0	28.9	0.032	904.4	0.0
		7:00:00 PM	1.00	70.0	29.0	0.032	905.4	0.0
		8:00:00 PM	1.00	69.0	28.0	0.031	903.6	0.0
		9:00:00 PM	1.00	70.0	29.1	0.032	908.5	0.0
		10:00:00 PM	0.30	13.0	14.3	0.131	108.8	0.0
<u>Linden</u>	<u>Z</u>	<u>Total</u>	13.35	922.0	395.4	0.043	11,765.1	0.0

* Only hours in which a unit operated are listed.

Monday, December 09, 2013

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>Load</i>						
<i>(hrs)</i>	<i>(MW)</i>						
Date: 7/19/2013							
Unit:	Linden	8	8				
	8:00:00 AM	0.15	3.0	2.9	0.095	30.4	0.0
	9:00:00 AM	1.00	66.0	33.0	0.043	767.4	0.0
	10:00:00 AM	1.00	69.0	23.6	0.03	787.5	0.0
	11:00:00 AM	1.00	68.0	23.4	0.03	781.4	0.0
	12:00:00 PM	1.00	68.0	23.4	0.03	780.4	0.0
	1:00:00 PM	1.00	68.0	23.3	0.03	775.0	0.0
	2:00:00 PM	1.00	68.0	24.0	0.031	773.3	0.0
	3:00:00 PM	1.00	68.0	23.9	0.031	770.6	0.0
	4:00:00 PM	1.00	68.0	24.1	0.031	776.5	0.0
	5:00:00 PM	1.00	68.0	24.1	0.031	778.8	0.0
	6:00:00 PM	1.00	68.0	24.1	0.031	776.5	0.0
	7:00:00 PM	1.00	68.0	24.0	0.031	774.4	0.0
	8:00:00 PM	1.00	68.0	24.0	0.031	774.2	0.0
	9:00:00 PM	1.00	69.0	24.0	0.031	773.0	0.0
	10:00:00 PM	0.33	12.0	16.1	0.165	97.4	0.0
<u>Linden</u>	<u>8</u>	<u>Total</u>	13.48	899.0	337.9	10,216.8	0.0
Unit:	Salem	3	2001				
	1:00:00 PM	1.00	29.0	514.8	1.2	0.0	429.0
	2:00:00 PM	1.00	28.0	497.0	1.2	0.0	414.2
	3:00:00 PM	1.00	2.0	35.5	1.2	0.0	29.6
<u>Salem</u>	<u>3</u>	<u>Total</u>	3.00	59.0	1,047.3	0.0	872.8

* Only hours in which a unit operated are listed.

Monday, December 09, 2013

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			<i>Run Time</i>	<i>Load</i>	<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
			<i>(hrs)</i>	<i>(MW)</i>	<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
					<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	<i>(MMBtu)</i>
Date: 7/19/2013								
Unit:	Sewaren	1	1					
	12:00:00 AM	1.00	26.0	16.6	0.047	352.2	0.0	
	1:00:00 AM	1.00	25.0	16.6	0.047	353.5	0.0	
	2:00:00 AM	1.00	25.0	16.6	0.047	353.7	0.0	
	3:00:00 AM	1.00	25.0	16.6	0.047	354.1	0.0	
	4:00:00 AM	1.00	25.0	16.6	0.047	354.2	0.0	
	5:00:00 AM	1.00	25.0	16.6	0.047	352.9	0.0	
	6:00:00 AM	1.00	34.0	22.4	0.051	438.4	0.0	
	7:00:00 AM	1.00	61.0	45.1	0.063	715.8	0.0	
	8:00:00 AM	1.00	80.0	66.3	0.073	908.9	0.0	
	9:00:00 AM	1.00	94.0	80.2	0.075	1,069.7	0.0	
	10:00:00 AM	1.00	107.0	85.7	0.072	1,190.4	0.0	
	11:00:00 AM	1.00	107.0	85.5	0.072	1,187.6	0.0	
	12:00:00 PM	1.00	107.0	85.6	0.072	1,188.3	0.0	
	1:00:00 PM	1.00	107.0	85.5	0.072	1,187.3	0.0	
	2:00:00 PM	1.00	107.0	85.6	0.072	1,188.5	0.0	
	3:00:00 PM	1.00	107.0	85.4	0.072	1,185.5	0.0	
	4:00:00 PM	1.00	107.0	85.4	0.072	1,186.1	0.0	
	5:00:00 PM	1.00	101.0	81.7	0.074	1,104.0	0.0	
	6:00:00 PM	1.00	92.0	76.9	0.076	1,011.6	0.0	
	7:00:00 PM	1.00	90.0	75.4	0.077	978.9	0.0	
	8:00:00 PM	1.00	86.0	68.4	0.074	924.4	0.0	
	9:00:00 PM	1.00	72.0	51.0	0.066	773.3	0.0	
	10:00:00 PM	1.00	39.0	23.0	0.051	450.0	0.0	
	11:00:00 PM	1.00	25.0	15.7	0.046	340.5	0.0	
Sewaren	1	Total	24.00	1,674.0	1,304.4	0.063	19,149.8	0.0

* Only hours in which a unit operated are listed.

Monday, December 09, 2013

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				NOx Emissions	NOx Emission	Natural Gas	Oil Heat Input	
				Mass	Rate	Heat Input		
				(lbs)	(lb/MMBtu)	(MMBtu)	(MMBtu)	
				Run Time	Load			
				(hrs)	(MW)			
Date: 7/19/2013								
Unit:	Sewaren	2	2					
	12:00:00 AM	1.00	31.0	15.3	0.041	373.8	0.0	
	1:00:00 AM	1.00	25.0	11.2	0.034	329.2	0.0	
	2:00:00 AM	1.00	25.0	11.2	0.034	329.5	0.0	
	3:00:00 AM	1.00	25.0	11.2	0.034	329.6	0.0	
	4:00:00 AM	1.00	25.0	11.2	0.034	329.4	0.0	
	5:00:00 AM	1.00	25.0	11.2	0.034	328.8	0.0	
	6:00:00 AM	1.00	37.0	22.1	0.051	434.2	0.0	
	7:00:00 AM	1.00	74.0	57.1	0.073	781.8	0.0	
	8:00:00 AM	1.00	74.0	56.1	0.073	768.5	0.0	
	9:00:00 AM	1.00	80.0	61.1	0.073	837.1	0.0	
	10:00:00 AM	1.00	100.0	73.2	0.072	1,017.1	0.0	
	11:00:00 AM	1.00	107.0	80.3	0.075	1,070.3	0.0	
	12:00:00 PM	1.00	107.0	80.4	0.075	1,071.8	0.0	
	1:00:00 PM	1.00	108.0	80.4	0.075	1,072.3	0.0	
	2:00:00 PM	1.00	108.0	80.4	0.075	1,071.8	0.0	
	3:00:00 PM	1.00	108.0	80.1	0.075	1,067.7	0.0	
	4:00:00 PM	1.00	105.0	76.2	0.073	1,043.6	0.0	
	5:00:00 PM	1.00	92.0	65.8	0.072	913.8	0.0	
	6:00:00 PM	1.00	72.0	54.3	0.073	743.4	0.0	
	7:00:00 PM	1.00	92.0	67.5	0.072	936.9	0.0	
	8:00:00 PM	1.00	78.0	57.9	0.073	793.2	0.0	
	9:00:00 PM	1.00	62.0	48.2	0.074	651.9	0.0	
	10:00:00 PM	1.00	33.0	15.9	0.042	378.6	0.0	
	11:00:00 PM	1.00	25.0	10.7	0.033	324.3	0.0	
Sewaren	2	Total	24.00	1,618.0	1,139.0	0.060	16,998.6	0.0
7/19/2013	Total		400.86	16,932.0	43,708.3	0.269	185,752.7	13,696.9

* Only hours in which a unit operated are listed.

Monday, December 09, 2013

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Attachment 5
Selected Unit Operation

Selected Unit Operation During 2013 HEDDs

Date	Bergen 3 MW/day	Burlington 8 MW/day	Edison 11 MW/day	Edison 12 MW/day	Edison 13 MW/day	Edison 14 MW/day	Edison 21 MW/day	Edison 22 MW/day	Edison 23 MW/day	Edison 24 MW/day	Edison 31 MW/day	Edison 32 MW/day	Edison 33 MW/day	Edison 34 MW/day	Salem 3 MW/day	Sewaren 1 MW/day
25-Jun-13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-Jun-13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05-Jul-13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Jul-13	68	62	204	208	166	92	209	230	237	235	207	178	270	149	159	732
16-Jul-13	0	0	204	210	173	94	195	206	214	209	196	194	188	195	0	881
17-Jul-13	0	0	61	61	217	63	103	107	112	108	61	57	248	26	0	1,650
18-Jul-13	33	0	213	219	223	224	205	215	222	226	207	202	256	194	94	1,440
19-Jul-13	131	0	242	248	204	251	229	243	252	241	227	231	229	60	65	1,554

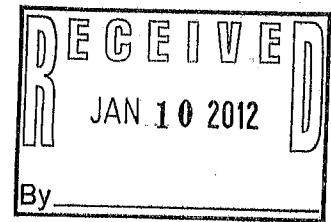
*Note - Units which did not operate during 2013 HEDDs are not listed here.

Reasons for Operation on HEDDs	
25-Jun-13	
26-Jun-13	
05-Jul-13	
15-Jul-13	Bergen 3, Burlington 8, Salem 3 ran for economics. Edison 11,12,13,14,21,22,23,24,31,32,33,34 & Sewaren 1 were all online per their day ahead schedule
16-Jul-13	All Edison units and Sewaren 2 ran for economics. Sewaren 1 ran per their day ahead schedule.
17-Jul-13	Edison 11,12,14,31,32,34, Sewaren 2 ran for economics. Edison 13, 21,22,23,24,33, Sewaren 1 ran per their day ahead schedule.
18-Jul-13	All units listed on this day ran for economics
19-Jul-13	All units listed on this day ran for economics



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR AND HAZARDOUS MATERIALS ENFORCEMENT
Bureau of Air Compliance and Enforcement-Southern
2 Riverside Drive-Suite 201, Camden, NJ 08103
Tel: (856) 614-3601
Fax: (856) 614-3613



CHRIS CHRISTIE
Governor

BOB MARTIN
Commissioner

KIM GUADAGNO
Lt. Governor

CERTIFIED MAIL/RRR
#7005-1160-0004-0983-3614

January 7, 2013

Ms. Maryann McLaughlin, Environmental Manager
PSE&G NUCLEAR LLC
PO BOX MC/X10
HANCOCKS BRIDGE, NJ 08038

RE: PSEG NUCLEAR LLC HOPE CRK & SALEM GEN STA
Administrative Order and Notice of Civil Administrative Penalty Assessment
(AONOCAPA)
EA ID #: PEA130001 - 65500

Dear Ms. McLaughlin:

Enclosed for service upon you is an AONOCAPA issued by the Department. Contained within the enclosed document is a notice and instructions for requesting an Administrative Hearing. Failure to request a hearing within 20 days as per the instructions will result in loss of your right to a hearing.

If you have any questions concerning the enclosed AONOCAPA, you may contact Tim Davis of my staff at (856) 614-3601 or by letter at the above address.

Sincerely,

Richelle B. Wormley, Manager
Bureau of Air Compliance & Enforcement-
Southern

Enclosure



State of New Jersey

CHRIS CHRISTIE
Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR AND HAZARDOUS MATERIALS ENFORCEMENT
Bureau of Air Compliance and Enforcement-Southern
2 Riverside Drive-Suite 201, Camden, NJ 08103
Tel: (856) 614-3601
Fax: (856) 614-3613

BOB MARTIN
Commissioner

KIM GUADAGNO
Lt. Governor

IN THE MATTER OF
PSE&G NUCLEAR LLC
PO BOX MC/X10
HANCOCKS BRIDGE, NJ 08038

: ADMINISTRATIVE ORDER
:
: AND
:
: NOTICE OF CIVIL ADMINISTRATIVE
:
: PENALTY ASSESSMENT
:
:

EA ID # PEA130001 - 65500

This Administrative Order and Notice of Civil Administrative Penalty Assessment (hereinafter AONOCAPA) are issued pursuant to the authority vested in the Commissioner of the New Jersey Department of Environmental Protection (hereinafter NJDEP or the Department) by N.J.S.A. 13:1D-1 et seq., and the Air Pollution Control Act, N.J.S.A. 26:2C-1 et seq. (the "Act"), and duly delegated to the Manager, Division of Air and Hazardous Materials Enforcement, Bureau of Air Compliance & Enforcement- Southern pursuant to N.J.S.A.13:1B-4.

FINDINGS

1. PSE&G NUCLEAR LLC owns and/or operates a facility located at Alloway Creek Neck Rd, Township of Lower Alloways Creek, Salem County, New Jersey (ID# 65500).
2. As the result of an investigation(s) conducted on August 02, 2012, the Department has determined that PSE&G NUCLEAR LLC failed to comply with applicable requirements as follows:
 - A. Requirement: Pursuant to N.J.A.C. 7:27-22.3(e) and N.J.A.C. 7:27-22.16(a), VOC (Total) <= 0.03 tons/yr.
Description of Noncompliance: You failed to comply with all requirements of Operating Permit BOP110001. Specifically, on your Emissions Statement for calendar year 2011 you reported VOC emissions from emission unit U73 as 0.07 tons per year which is above the operating permit allowable limit of <= 0.03 tons per year in violation of U73, OS0, Ref #9.

- B. Requirement: Pursuant to N.J.A.C. 7:27-22.3(e) and N.J.A.C. 7:27-22.16(a), SO₂ ≤ 0.02 tons/yr.
Description of Noncompliance: You failed to comply with all requirements of Operating Permit BOP110001. Specifically, on your Emissions Statement for calendar year 2011 you reported SO₂ emissions from emission unit U73 as 0.05 tons per year which is above the operating permit allowable limit of ≤ 0.02 tons per year in violation of U73, OS0, Ref #8.
- C. Requirement: Pursuant to N.J.A.C. 7:27-22.3(e) and N.J.A.C. 7:27-22.16(a), PM-10 (Total) ≤ 0.03 tons/yr.
Description of Noncompliance: You failed to comply with all requirements of Operating Permit BOP110001. Specifically, on your Emissions Statement for calendar year 2011 you reported PM-10 emissions from emission unit U73 as 0.06 tons per year which is above the operating permit allowable limit of ≤ 0.03 tons per year in violation of U73, OS0, Ref #6.
- D. Requirement: Pursuant to N.J.A.C. 7:27-22.3(e) and N.J.A.C. 7:27-22.16(a), TSP ≤ 0.03 tons/yr.
Description of Noncompliance: You failed to comply with all requirements of Operating Permit BOP110001. Specifically, on your Emissions Statement for calendar year 2011 you reported TSP emissions from emission unit U73 as 0.06 tons per year which is above the operating permit allowable limit of ≤ 0.03 tons per year in violation of U73, OS0, Ref #7.
3. Based on the facts set forth in these FINDINGS, the Department has determined that PSE&G NUCLEAR LLC has violated the Air Pollution Control Act, N.J.S.A. 26:2C-1 et seq., and the regulations promulgated pursuant thereto specifically, N.J.A.C. 7:27-22.16(a) and N.J.A.C. 7:27-22.3(e).

ORDER

NOW, THEREFORE, IT IS HEREBY ORDERED THAT:

4. PSE&G NUCLEAR LLC shall comply with the following:
- Cease operation or comply with the emissions limits specified in the current Operating Permit, BOP110001-65500, specifically Subject Item U73.
5. This Order shall be effective upon receipt by PSE&G NUCLEAR LLC or someone on the violator's behalf authorized to accept service.

NOTICE OF CIVIL ADMINISTRATIVE PENALTY ASSESSMENT
AND
NOTICE OF RIGHT TO A HEARING

6. Pursuant to N.J.S.A. 26:2C-19 and N.J.A.C. 7:27A-3.1 et seq., and based upon the above FINDINGS, the Department has determined that a civil administrative penalty is hereby assessed against PSE&G NUCLEAR LLC in the amount of \$1,600.00. The Department's rationale for the civil administrative penalty is set forth in the attachment, and incorporated herein.
7. Pursuant to N.J.S.A. 26:2C-19 and N.J.A.C. 7:27A-3.12, the Department may, in addition to any civil administrative penalty assessed, include as a civil administrative penalty the economic benefit (in dollars) which a violator has realized as a result of not complying with, or by delaying compliance with the requirements of this Act, or any rule, administrative order, operating certificate or permit issued pursuant thereto.
8. Pursuant to N.J.S.A. 52:14B-1 et seq. and N.J.S.A. 26:2C-14.1, PSE&G NUCLEAR LLC is entitled to request a hearing. PSE&G NUCLEAR LLC shall, in its request for a hearing, complete and submit the enclosed ADMINISTRATIVE HEARING REQUEST AND CHECKLIST TRACKING FORM along with all required information. Submittal or granting of a hearing request does not stay the terms or effect of this ORDER.
9. If no request for a hearing is received within twenty (20) calendar days from receipt of this AONOCAPA, it shall become a Final Order upon the twenty-first (21st) calendar day following its receipt, and the penalty shall be due and payable.
10. If a timely request for a hearing is received, payment of the penalty is due when PSE&G NUCLEAR LLC receives a notice of the denial of the request, or, if the hearing request is granted, when PSE&G NUCLEAR LLC withdraws the request or abandons the hearing, or, if the hearing is conducted, when PSE&G NUCLEAR LLC receives a final decision from the Commissioner in this matter.
11. Payment shall be made by check payable to Treasurer, State of New Jersey and shall be submitted along with the enclosed Enforcement Invoice to:

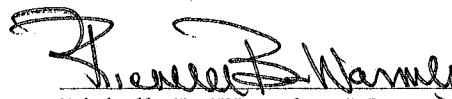
Department of Treasury
Division of Revenue
P.O. Box 417
Trenton, NJ 08646-0417

GENERAL PROVISIONS

12. This AONOCAPA is binding on PSE&G NUCLEAR LLC their principals, directors, officers, agents, successors, assigns, employees, tenants, any trustee in bankruptcy or other trustee, and any receiver appointed pursuant to a proceeding in law or equity.
13. No obligations imposed by this AONOCAPA are intended to constitute a debt which should be limited or discharged in a bankruptcy proceeding. All obligations are imposed pursuant to the police powers of the State of New Jersey, intended to protect the public health, safety, welfare and the environment.
14. This AONOCAPA is issued only for the violation(s) identified in the FINDINGS hereinabove and that violations of any statutes, rules or permits other than those herein cited may be cause for additional enforcement actions, either administrative or judicial, being instituted. By issuing this AONOCAPA, NJDEP does not waive its rights to initiate additional enforcement actions.
15. Neither the issuance of this AONOCAPA nor anything contained herein shall relieve PSE&G NUCLEAR LLC of the obligation to comply with all applicable laws, including but not limited to the statutes and regulations cited herein.
16. Pursuant to N.J.S.A. 26:2C-19(b) and N.J.S.A. 26:2C-19(d), any person who violates the provisions of the Act, or any code, rule regulation or order promulgated or issued pursuant thereto, or who fails to pay a civil administrative penalty in full, shall be liable to a penalty of up to \$10,000 for the first offense, \$25,000 for the second offense, and \$50,000 for the third and each subsequent offense. Each day during which the violation continues constitutes an additional, separate and distinct offense.
17. Pursuant to N.J.S.A. 26:2C-19(f)1, any person who purposely or knowingly violates the provisions of the Act, or any code, rule, regulation, administrative order or court order, promulgated or issued pursuant thereto, is guilty of a crime of the third degree.
18. Pursuant to N.J.S.A. 26:2C-19(f)2, any person who recklessly violates the provisions of the Act, or any code, rule, regulation, administrative order or court order promulgated or issued pursuant thereto, is guilty of a crime of the fourth degree.

DATE:

1/7/2013



Richelle B. Wormley, Manager
Bureau of Air Compliance & Enforcement-
Southern Regional Office

Administrative Hearing Request Checklist and Tracking Form

I. Document Being Appealed: **EA ID #** PEA130001 - 65500

Date Document Issued

II. Person Requesting Hearing:

Name/Company

Name of Attorney (if applicable)

Address

Address

Telephone #

Telephone #

III. Please Include the Following Information As Part of Your Request:

- A. The date the alleged violator received the Enforcement Document.
- B. A **copy of the Enforcement Document** and a list of all issues being appealed.
- C. An admission or denial of each of the findings of fact, or a statement of insufficient knowledge;
- D. The defenses to each of the findings of fact in the enforcement document;
- E. Information supporting the request;
- F. An estimate of the time required for the hearing;
- G. A request, if necessary, for a barrier-free hearing location for physically disabled persons;
- H. A clear indication of any willingness to negotiate a settlement with the Department prior to the Department's processing of your hearing request to the Office of Administrative Law; and
- I. This form, completed, signed and dated with all of the information listed above, including attachment, to:

- 1. New Jersey Department of Environmental Protection
Office of Legal Affairs
Attention: Adjudicatory Hearing Requests
Mail Code 401-04L
401 E. State Street, P.O. Box 402
Trenton, NJ 08625
- 2. Richelle B. Wormley, Manager
Bureau of Air Compliance & Enforcement- Southern
2 Riverside Drive, Suite 201
Camden, NJ 08103
- 3. All co-permittees (w/attachments)

IV. Signature: _____

Date: _____

PSEG Nuclear – PI #65500
Penalty Calculation – PEA130001-65500

The emissions statement submitted by PSEG Nuclear LLC Hope Creek and Salem Generating Station for calendar year 2011 reported the following annual emissions violations for Subject Item U73, Outage Air Compressor

- PM-10 emissions were reported to be 0.06 tons per year which is above the permitted allowable of less than or equal to 0.03 tons per year.
- TSP emissions were reported to be 0.06 tons per year which is above the permitted allowable of 0.03 tons per year
- SO2 emissions were reported to be 0.05 tons per year which is above the permitted allowable of 0.02 tons per year
- VOC emissions were reported to be 0.07 tons per year which is above the permitted allowable of 0.03 tons per year

All four of these emissions violations outlined above fit under the 1.b. class of violation as shown on the following page. The first-offense penalty for these violations is \$400.00 each, for a total penalty of \$1,600.00

PSEG Nuclear – PI #65500
Penalty Calculation – PEA130001-65500

N.J.A.C. 7:27-22.3(e)	Other Permit Conditions					
Class: Emission of Source Operation						
1.a Less than 0.5 pound per hour - No Emission Increase	M	\$400 ¹⁰	\$800 ¹⁰	\$2,000 ¹⁰	\$6,000 ¹⁰	
1.b Less than 0.5 pound per hour - Emission Increase	NM					
2.a From 0.5 through 10 pounds per hour, or 0.5 through 2.5 pounds per hour for VOC and NO _x - No Emission Increase	M	\$800 ¹⁰	\$1,600 ¹⁰	\$4,000 ¹⁰	\$12,000 ¹⁰	
2.b From 0.5 through 10 pounds per hour, or 0.5 through 2.5 pounds per hour for VOC and NO _x - Emission Increase	NM					
3.a Greater than 10 through 22.8 pounds per hour, or greater than 2.5 through 5.7 pounds per hour for VOC and NO _x - No Emission Increase	M	\$1,200 ¹⁰	\$2,400 ¹⁰	\$6,000 ¹⁰	\$18,000 ¹⁰	
3.b Greater than 10 through 22.8 pounds per hour, or greater than 2.5 through 5.7 pounds per hour for VOC and NO _x - Emission Increase	NM					
4.a Greater than 22.8 pounds per hour, or greater than 5.7 pounds per hour for VOC and NO _x - No Emission Increase	M	\$2,000 ¹⁰	\$4,000 ¹⁰	\$10,000 ¹⁰	\$30,000 ¹⁰	
4.b Greater than 22.8 pounds per hour, or greater than 5.7 pounds per hour for VOC and NO _x - Emission Increase	NM					
5.a Regulated pursuant to NSPS, NESHAP, PSD, EOR, TXS and HAP (Table B) ⁶ - No Emission Increase	M	\$3,000	\$6,000	\$15,000	\$45,000	
5.b Regulated pursuant to NSPS, NESHAP, PSD, EOR, TXS and HAP (Table B) ⁶ - Emission Increase	NM					
⁶ NSPS (40 CFR 60) NESHAP (40 CFR 61) PSD (40 CFR 51) EOR (N.J.A.C. 7:27-18) TXS (N.J.A.C. 7:27-17) HAP Table B (N.J.A.C. 7:27-22, Appendix, Table B)						
¹⁰ Based on each Preconstruction Permit incorporated into the Operating Permit; if applicable, or if not, estimate of air contaminants with the stated emission rate without controls.						



NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

AIR & ENVIRONMENTAL QUALITY

COMPLIANCE AND ENFORCEMENT

INVOICE NO.

130035170

Program Interest
PSEG NUCLEAR LLC HOPE CRK & SALEM GEN ST
ALLOWAY CREEK NCK RD
Hancocks Bridge, NJ. 08038
65500

Type of Notice
ORIGINAL (NON-INITIAL)

Amount Due
\$ 1,600.00

Billing Date
01/04/13

Due Date
02/15/13

NJEMS Bill ID
000000108898600

Summary	
Total Amount Assessed	1,600.00
Amount Received Before Creating Installment Plan (if installment plans is allowed)	0.00
Amount Transferred To Installment Plan	0.00
Installment Amount	0.00
Total Amount Credited	0.00
Total Amount Debited (Other Than Amounts Assessed)	0.00
Total Amount Due	1,600.00

REMINDER:

- SEE BACK OF INVOICE FOR DEP CONTACT INFORMATION
- MAKE CHECKS PAYABLE TO: TREASURER - STATE OF NEW JERSEY
- WRITE PROGRAM INTEREST ID ON YOUR CHECK (SEE BOTTOM STUB)
- RETURN THE BOTTOM STUB WITH YOUR PAYMENT
- MAIL PAYMENT AND STUB TO NJ DEPARTMENT OF TREASURY (SEE BOTTOM STUB)

See Back Of Page for Billing Inquiries

INVOICE NO.

130035170

D9901F (R 3/14/02)

Let's protect our earth



NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

AIR & ENVIRONMENTAL QUALITY

COMPLIANCE AND ENFORCEMENT

INVOICE NO.

130035170

Program Interest ID
65500

Type of Notice
ORIGINAL (NON-INITIAL)

Billing Date
01/04/13

Due Date
02/15/13

NJEMS Bill ID
000000108898600

Amount Due
\$ 1,600.00

For name and/or address
change, check box and write
corrections on the back of this
invoice.

**DO NOT FOLD, BEND OR MARK**Enter the Amount
of your payment → \$**RETURN THIS PORTION**

with your check made payable to:

TREASURER - STATE OF NEW JERSEY
and mail to:NJ DEPARTMENT OF TREASURY
DIVISION OF REVENUE
PO BOX 417
TRENTON, NJ 08646-0417

PSEG&G NUCLEAR LLC

A2

PO BOX 236
Hancocks Bridge NJ 08038-0236

EP1010101010101010100605050000111110001600000000061300351705A24



AIR & ENVIRONMENTAL QUALITY COMPLIANCE AND ENFORCEMENT

Program Interest

PSEG NUCLEAR LLC HOPE CRK & SALEM GEN ST
ALLOWAY CREEK NCK RD
Hancocks Bridge, NJ. 08038
65500

Type of Notice

ORIGINAL (NON-INITIAL)

Amount Due

\$ 1,600.00

Billing Date

01/04/13

Due Date

02/15/13

NJEMS Bill ID

000000108898600

AONOCAPA
Prescribed Enforcement Action
This bill was created by the Assessments Trigger.

ASSESSMENTS

Start-End Date: 01/04/2013-01/04/2013 Activity: PEA130001

Assessment Type: PENALTY

Regulatory Basis:

Status: Open (Pending Payment)

Amount: \$ 1600.00

Total Amount Assessed: \$ 1,600.00



PSEG Power LLC

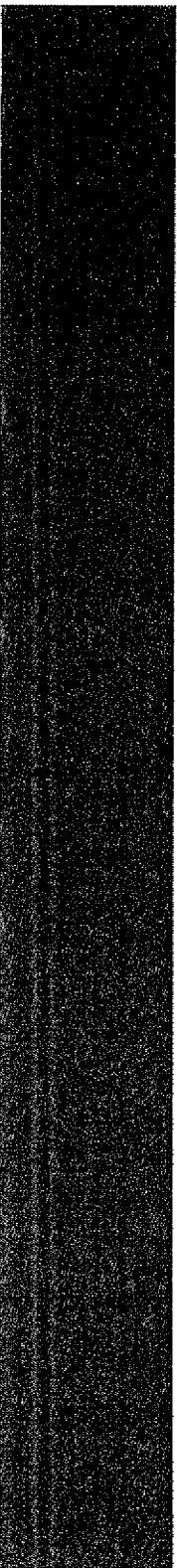
**October 1, 2013 through December 31, 2013
NO_x Emissions Averaging Plan
Quarterly Report**

Submitted To:

**New Jersey Department of Environmental Protection
Central Regional Office**

January 2014

**SUBMITTED BY: PSEG FOSSIL LLC
80 PARK PLAZA, T25H
NEWARK, NEW JERSEY 07102**



Introduction

The PSEG Power LLC¹ NO_x Emissions Averaging Plan for Nitrogen Oxides (“NO_x”) was originally approved by the New Jersey Department of Environmental Protection (“NJDEP” or “the Department”) on November 8, 1995 pursuant to N.J.A.C. 7:27-19.6. It encompasses nearly all of the Company’s fossil-fuel generation stations in the state, with the exception of Kearny Generating Station Units 13 & 14, which were not added to the plan in the latest revision.

An Emissions Averaging Plan is designed to lower the net NO_x emissions from the generating units in the Plan (the “designated set”) on a daily basis. Designated Set units that can meet their NO_x RACT limit pledge to emit at a lower emissions rate to “balance out” other units in the plan which can not meet their NO_x RACT limits by themselves. This system ensures that the combination of units in a Plan must emit less NO_x than they would otherwise be allowed from permit or other regulatory limits. In fact, many of the NO_x emission limits agreed to between PSEG and the Department have been codified in facility Title V Operating Permits as per N.J.A.C. 7:27-19(c)3, thus providing a federally enforceable agreement between PSEG and NJDEP and permanently implying that unit’s status in the designated set.

The latest revision to the plan was on October 28, 2013². In addition to summarizing historical changes made in NJDEP letters and PSEG 7 day notices, this revision eliminates the fuel switching provisions of N.J.A.C. 7:27-19.20 for Mercer Units 1 and 2. As such, the title of this quarterly report was modified to remove references to these provisions.

The current Averaging Plan designated set consists of 33 generating units. A list of these units and the applicable RACT and allowable NO_x emission limits is included as **Attachment 1**. These tables are additionally attached to the Averaging Plan as Table 1 and 2 of the Conditions of Approval.

The Averaging Plan includes reporting requirements pursuant to N.J.A.C. 7:27-19.6(h). This Quarterly Report documents compliance with the terms of the approved Averaging Plan and subsequent modifications from October 1, 2013 through December 31, 2013, the Fourth Quarter of 2013, hereinafter “Report Period.”

¹ Previous versions of the Plan referred to PSE&G. The latest Plan revision modified these references to PSEG Power LLC, the owner & operator of the generating units in the Designated Set.

² As attached to National Park (PI 55778)’s Title V Operating Permit.

Quarterly Report Designated Set Compliance Summary

1. Per Condition I.A: the reporting period wholly occurred before May 1, 2015, and therefore the Averaging Plan provisions approved by NJDEP and attached to National Park's Title V Permit, of which this quarterly report is one, are still active.
2. Per Condition I.B: the sum of the actual NO_x emissions from all generating units in the designated set did not exceed the sum of the applicable RACT NO_x emissions from all generating units in the designated set. The designated set is required to maintain compliance on a 30-day rolling credit basis for the non-ozone season (this reporting period is entirely in the non-ozone season), and must generate positive credit on a daily basis in the ozone season (no days in this reporting period are in the ozone season).

Documentation pursuant to the above, per Condition VI, is included as **Attachment 2** and **Attachment 3** for daily and 30 day rolling compliance. The maximum RACT and allowable NO_x emission rates are listed in **Attachment 1**.
3. Per Condition I.C: On each day in the reporting period, the daily NO_x rate for all units did not exceed the "allowable" limit for that unit as specified in Table 2 of Appendix A aside from PJM testing (per Condition IV) and startup/shutdown periods (per Condition V) as marked on the daily compliance calculation summaries.

All units in the Designated Set which are required to use continuous emissions monitoring systems (CEMS) operated with them during the entire reporting period. Certain Designated Set units are authorized to operate without CEMS – these are listed in the approved NO_x RACT Alternative Monitoring Plan which is attached to the National Park Title V Operating Permit. [Additionally, see Condition V.B of the Conditions of Approval]

4. Per Condition II, during the reporting period PSEG Fossil did not require potential credit generated by a Designated Set unit which was not able to be operated due to sudden and reasonably unforeseeable circumstances to comply with either a daily or 30-day rolling average credit calculation, and thus did not invoke the provisions of this Condition. In the event that these conditions were exercised, copies of correspondence to the Department would be included in this Quarterly Report.
5. Per Condition III, PJM testing, whenever it occurred on a unit without CEMS, is noted by the term "(PJM)" following the name of a Designated Set Unit in the daily set calculations.
6. Per Condition IV, whenever the transient period exemption was invoked during the reporting period, an asterisk follows the "Y" designating daily unit compliance with its lb/MMBTU limit for that day.

7. Per Condition V.A, all PSEG CEMS in the Designated Set operated pursuant to 40 CFR 60, Appendix F and/or 40 CFR 75, Appendix B (as applicable) specifications during the reporting period. All CEMS were operated according to a Department approved CEMS protocol.

Calculation Methodology

In addition to the provisions in N.J.A.C. 7:27-19.6 and the Conditions of Approval, PSEG is complying with the following modifications to its daily compliance calculations:

40 CFR Part 75 Appendix E Units (Condition VII.A.1)

Pursuant to the NJDEP letter dated November 9, 2000, with regard to the installation of NO_x and CO CEMS on PSEG's low capacity factor steam units, certain additional reporting requirements were imposed by the NJDEP in lieu of the installation of full CEMS on these units. The units to which this applies are Sewaren Unit Nos. 1 and 2. Documentation regarding items 1-3 must be contained in the fourth quarter NO_x Averaging compliance summary, and failure to comply with the conditions will necessitate the installation of CEMS for NO_x, O₂ and CO₂.

Item No. 1 of this letter states that these units must remain classified as peaking units as defined by the Federal Acid Rain and NO_x Budget Programs. A "peaking unit", as defined in 40 CFR 72.2, is a unit that has 1) an average capacity factor of no more than 10.0 percent during the previous three calendar years and 2) a capacity factor of no more than 20.0 percent in each of those calendar years.

For the three-year period between January 1, 2010 and December 31, 2013, Sewaren 1 and 2 meet the criteria for a peaking unit under 40 CFR 72.2, as seen below:

Unit	Capacity Factor (%)			Average Capacity Factor	Maximum Capacity Factor
	2011	2012	2013		
Sewaren 1	3.29%	3.26%	1.16%	2.57%	3.29%
Sewaren 2	1.76%	1.56%	0.78%	1.37%	1.76%

Item No. 2 of this letter states that annual combustion process adjustments (pursuant to N.J.A.C. 7:27-19.16(c)) must be conducted on each of the units referenced above.

Pursuant to this requirement, Annual Combustion process adjustments were performed on Sewaren 1 & 2 during the calendar year 2013. These adjustments have been submitted electronically to NJDEP via its "NJDEP Online" Portal.

Item No. 3 of this letter states:

The values utilized in an averaging plan must be conservative to account for their lack of real-time accuracy. Accordingly, the values utilized must be 20% above the Appendix E values for each source. Appendix E values are determined in accordance with Appendix E of 40 CFR Part 75.

All Averaging Plan emissions calculations for these units utilize Appendix E values factored up by an additional 20%.

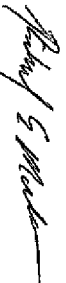
NO_x Budget/CAIR Heat Rate Factors for Simple-Cycle Turbines

Please see Table 3 of the Plan, included in Attachment 1.

**PSEG NO_x EMISSIONS AVERAGING PLAN QUARTERLY REPORT
FOR THE PERIOD OCTOBER 1, 2013 - DECEMBER 31, 2013**

Certification Pursuant to N.J.A.C. 7:27-1.39(a)1.

I certify under penalty of law that I believe the information provided in this document is true, accurate and complete. I am aware that there are significant civil and criminal penalties, including the possibility of fine or imprisonment or both, for submitting false, inaccurate or incomplete information.



Richard E. Modes
Environmental Coordinator

Certification Pursuant to N.J.A.C. 7:27-1.39(a)2.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attached documents and, based upon my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil and criminal penalties, including the possibility of fine or imprisonment or both, for submitting false, inaccurate or incomplete information.



Mark F. Strickland
Director – Fossil Environmental Affairs

January 29, 2015

Mr. Francis Steitz
Department of Environmental Protection
Division of Air Quality
Air Quality Permitting Program
Bureau of Air Permits
401 East State Street
Mail Code 401-02
PO Box 420
Trenton, New Jersey 08625-0420

**RE: PSEG Fossil LLC
Submittal of Annual Report for Calendar Year 2014
N.J.A.C. 7:27-19.29(k) – HEDD**

Dear Mr. Steitz:

PSEG Fossil LLC (PSEG Fossil) is pleased to submit the attached Annual Report for Calendar Year 2014 containing information required by New Jersey Administrative Code (N.J.A.C.) 7:27-19.29(k) relative to high electric demand days (HEDDs) in calendar year 2014. This is the final HEDD Annual Report required to be submitted.

PSEG Fossil identified five (5) HEDDs in 2014 using the methods prescribed in the rule. The HEDDs were:

June 2014

June 18, 2014

July 2014

July 2, 2014
July 8, 2014
July 23, 2014

September 2014

September 2, 2014

PSEG Fossil achieved compliance with the provisions of N.J.A.C. 7:27-19.29(b)4 by complying with N.J.A.C. 7:27-19.29(b)(4)(ii) which reads:

“The Department-approved method of demonstrating in the 2009 Protocol that implementation of the 2009 Protocol on each high electric demand day that occurred starting January 1, 2005 through December 31, 2007 would have resulted in at least as many tons of NO_x emission reductions as would have been required by Equation 1 below. The owner or operator shall demonstrate that the

owner or operator implemented the 2009 Protocol, or a modified protocol approved by the Department pursuant to (h) below, on each high electric demand day during the calendar year of the applicable annual report.”

PSEG Fossil has complied with all remaining sections of N.J.A.C. 7:27-19.29 pursuant to the filing of the attached Annual Report for Calendar Year 2014.

Should you have any questions or require additional information, please do not hesitate to contact me at (973) 430-6293.

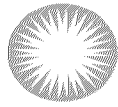
Sincerely,



Richard E. Modes
Fossil Environmental Specialist

cc: Michael Hogan (NJDEP)

bcc: J. Cowan (w/o attachments)
D. Gordon (w/o attachments)
E. Gorman (w/o attachments)
D. Hinchey (w/o attachments)
M. Strickland (w/o attachments)
R. Modes (w/attachments)



PSEG Fossil LLC

**Calendar Year 2014
High Electric Demand Day (HEDD)
2009-2014 Annual Report**

Submitted To:

**New Jersey Department of Environmental Protection
Division of Air Quality
Air Quality Permitting Element
Bureau of Air Permits**

January 2015

**SUBMITTED BY: PSEG FOSSIL LLC
80 PARK PLAZA, T25H
NEWARK, NEW JERSEY 07102**

Introduction

On August 4, 2008, the New Jersey Department of Environmental Protection (NJDEP or the Department) proposed new rules and amendments governing the control and prohibition of Volatile Organic Compounds (VOC) and Nitrogen Oxides (NO_x). On March 20, 2009, the rules were adopted and published in the New Jersey Register, became effective on April 20, 2009 and operative on May 19, 2009. These rules impact several source categories of emissions including stationary combustion turbines and boilers serving electric generating units that operate on high electric demand days (HEDDs). The Department regulates NO_x emissions from HEDD units, because these units can emit significant quantities of NO_x on HEDDs, which are typically high temperature and high ozone days during the summer.

Pursuant to New Jersey Administrative Code (N.J.A.C.) 7:27-19.1, HEDD means the day following a day in which the next day forecast load is estimated to have a peak value of 52,000 megawatts (MW) or higher as predicted by the Pennsylvania-Jersey-Maryland¹ (PJM) Interconnection 0815 update to its Mid Atlantic Region Hour Ending Integrated Forecast Load, available from PJM Interconnection at <http://oasis.pjm.com/doc/projload.txt>. N.J.A.C. 7:27-19.1 also defines a HEDD unit as an electrical generating unit, capable of generating 15 MW or more, that commenced operation prior to May 1, 2005, and that operated less than or equal to an average of 50 percent of the time during the ozone seasons of 2005 through 2007.

In 2014, PSEG Fossil LLC (PSEG Fossil) owned 26 HEDD units in the State of New Jersey. These 26 HEDD units were comprised of 99 combustion turbines and four (4) boilers serving electric generating units (EGUs). Descriptive information on these HEDD units is provided in the tables below.

¹ Pennsylvania-New Jersey-Maryland Interconnection, LLC, is a regional transmission organization (RTO) that coordinates the movement of wholesale electricity in all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia. Acting neutrally and independently, PJM operates the world's largest competitive wholesale electricity market and ensures the reliability of the largest centrally dispatched grid in the world.

Combustion Turbine HEDD Units

Facility ID	Facility Name	Equipment ID	Unit No.	No. of Turbines	Fuel(s)	Model
02488	Bergen	E5	3*	1	Natural Gas	P&W FT4
45979	Burlington	E4	8*	1	Low Sulfur Distillate Oil	P&W FT4
		E5-E12	9*	8	Low Sulfur Distillate Oil	P&W FT4
		E17-E24	11*	8	Low Sulfur Distillate Oil	P&W FT4
		E36-E39	12	4	Natural Gas / Low Sulfur Distillate Oil	GE LM6000
17824	Edison	E1-E8	1	8	Natural Gas / Low Sulfur Distillate Oil	P&W FT4
		E9-E16	2	8	Natural Gas / Low Sulfur Distillate Oil	P&W FT4
		E17-E24	3	8	Natural Gas / Low Sulfur Distillate Oil	P&W FT4
07627	Essex	E1	9	1	Natural Gas / Low Sulfur Distillate Oil	GE 7EA
		E2-E9	10	8	Natural Gas / Low Sulfur Distillate Oil	P&W FT4
		E10-E17	11	8	Natural Gas / Low Sulfur Distillate Oil	P&W FT4
		E18-E25	12	8	Natural Gas / Low Sulfur Distillate Oil	P&W FT4
12200	Kearny	E4	9*	1	Natural Gas	P&W FT4
		E35-E38	12	4	Natural Gas / Low Sulfur Distillate Oil	GE LM6000
41810	Linden	E6	5	1	Natural Gas / Low Sulfur Distillate Oil	GE 7EA
		E7	6	1	Natural Gas / Low Sulfur Distillate Oil	GE 7EA
		E8	7	1	Natural Gas / Low Sulfur Distillate Oil	GE 7EA
		E9	8	1	Natural Gas / Low Sulfur Distillate Oil	GE 7EA
61057	Mercer	E5-E12	3*	8	Low Sulfur Distillate Oil	P&W FT4
55778	National Park	E1	1*	1	Low Sulfur Distillate Oil	P&W FT4
65500	Salem	E39-E40	3*	2	Low Sulfur Distillate Oil	P&W FT4
18068	Sewaren	E7-E14	6*	8	Low Sulfur Distillate Oil	P&W FT4

Notes:

Bergen = Bergen Generating Station; Burlington = Burlington Generating Station; Edison = Edison Generating Station; Essex = Essex Generating Station; Kearny = Kearny Generating Station; Linden = Linden Generating Station; Mercer = Mercer Generating Station; National Park = National Park Generating Station; Salem = Salem Generating Station; Sewaren = Sewaren Generating Station; P&W = Pratt & Whitney; and GE = General Electric.

** Units did not operate on any HED days in 2014.*

Kearny Units No. 10 and 11 were retired effective June 1, 2012, and removed from HEDD annual reports.

Boiler HEDD Units

Facility ID	Facility Name	Equipment ID	Unit No.	Fuel(s)	Model
18068	Sewaren	E1	1	Natural Gas / No. 6 Fuel Oil	Combustion Engineering
		E2	2	Natural Gas / No. 6 Fuel Oil	Combustion Engineering
		E3	3	Natural Gas / No. 6 Fuel Oil	Combustion Engineering
		E4	4	Natural Gas / No. 6 Fuel Oil	Combustion Engineering

Notes:

Hudson Unit No. 1 was retired in December 2011, and removed from HEDD annual reports.

Pursuant to N.J.A.C. 7:27-19.29(b)2, each owner or operator of an HEDD unit must submit a 2009 HEDD Emission Reduction Compliance Demonstration Protocol (2009 Protocol) indicating how the owner or operator will comply with the HEDD provisions in N.J.A.C. 7:27-19. PSEG Fossil's 2009 Protocol was submitted to the Department prior to May 1, 2009, and was formally approved by the Department via letter on October 13, 2010. As shown in this annual report, PSEG Fossil has complied with the 2009 Protocol on all HEDDs to date beginning on May 1, 2009. A copy of PSEG Fossil's 2009 Protocol (and the NJDEP approval letter) is included in **Attachment 1**.

Pursuant to N.J.A.C. 7:27-19.29(b)5 and 19.29(k), each owner or operator of an HEDD unit must submit an annual report for the calendar years 2009 through 2014 by January 30th of the following year demonstrating compliance with the HEDD provisions of N.J.A.C. 7:27-19. Also, pursuant to N.J.A.C. 7:27-19.29(b)(4ii), the annual report must contain the provisions agreed to between the owner or operator and the Department in the 2009 Protocol.

This annual report is being submitted for calendar year 2014. In 2014, PSEG Fossil identified five (5) HEDDs as defined in N.J.A.C. 7:27-19.1. These HEDDs were:

June 2014

June 18, 2014

July 2014

July 2, 2014
 July 8, 2014
 July 23, 2014

September 2014

September 2, 2014

Annual Report Compliance Summary

N.J.A.C. 7:27-19.29(b)4: *Demonstrate that all NO_x emission reductions required by (b)3 above were obtained. The owner or operator shall include this demonstration in the annual report at (k) below. Conduct any demonstration using:*

- i. Calculations that demonstrate that the owner or operator achieved all emission reductions required at (b)3 above; or*
- ii. The Department-approved method of demonstrating in the 2009 Protocol that implementation of the 2009 Protocol on each high electric demand day that occurred starting January 1, 2005 through December 31, 2007 would have resulted in at least as many tons of NO_x emission reductions as would have been required by Equation 1 below. The owner or operator shall demonstrate that the owner or operator implemented the 2009 Protocol, or a modified protocol approved by the Department pursuant to (h) below, on each high electric demand day during the calendar year of the applicable annual report; and [submit it to the address in (b)5]*

Status: Compliant

PSEG Fossil has chosen to demonstrate compliance with this requirement using the methods of N.J.A.C. 7:27-19.29(b)(4ii) instead of N.J.A.C. 7:27-19.29(b)(4i). PSEG Fossil's approved 2009 Protocol, which demonstrates that the measures implemented on each HEDD in 2009 historically achieved all required emission reductions as calculated using Equation 1 in N.J.A.C. 7:27-19.29(c), is included in **Attachment 1**.

As further demonstration of this requirement, please refer to the description of compliance with N.J.A.C. 7:27-19.29(k)1 below, which documents that the approved 2009 Protocol has been implemented on each HEDD that occurred in 2014.

N.J.A.C. 7:27-19.29(k): *Each owner or operator identified in (a) above shall submit an annual report for calendar years 2009 through 2014. Each annual report shall be submitted to the Department to the address at (b)5 above, by January 30th of the following year. (For example, the annual report for 2009 is due on January 30, 2010). At a minimum, the annual report shall include the following information, as applicable, for each measure and each high electric demand day:*

N.J.A.C. 7:27-19.29(k)1: *The actions taken to reduce emissions;*

Status: Compliant

Pursuant to PSEG Fossil's 2009 Protocol, the following actions were taken on all HEDDs in the report period:

1. The simple cycle combustion turbines at Burlington Units No. 9 and 11, and Essex Units No. 10, 11, and 12 operated with water injection at all times while in service, except

periods of startup, shutdown, fuel transfer periods (Essex units only), and mechanical safety testing. Documentation pursuant to this requirement is provided in **Attachment 2**.

2. The simple cycle combustion turbines at Mercer Unit No. 3 and Sewaren Unit No. 6 were placed into Maximum Emergency Generation (MEG) alert status with PJM on each HEDD in 2014. As previously noted, Kearny Units No. 10 and 11 were retired effective June 1, 2012.
3. Load switching was encouraged through implementation of the following measures:
 - a. The simple cycle combustion turbine units listed in #2 above were placed on MEG alert status;
 - b. Title V Operating Permit modifications approved in May 2009 increased the allowable annual operating capacity of its clean and efficient General Electric (GE) LM6000 combustion turbines (4 combustion turbines at Kearny Unit No. 12 and 4 combustion turbines at Burlington Unit No. 12); and
 - c. PSEG Fossil encourages PJM to call for operation of its clean and efficient combined cycle combustion turbine units (Bergen Units No. 1 and 2, and Linden Units No. 1 and 2), as well as its clean and efficient simple cycle combustion turbine units (Essex Unit No. 9, Linden Units No. 5, 6, 7, and 8, Burlington Unit No. 12, and Kearny Unit No. 12) by offering them at a more economic price per MW based on unit dispatch rates (closely corresponding to heat rates) before calling for its less efficient Bergen Unit No. 3, Burlington Unit No. 8, Edison Units No. 1, 2, and 3, Kearny Unit No. 9, National Park Unit No. 1, Salem Unit No. 3, and Sewaren Units No. 1, 2, 3, and 4) under normal circumstances. Normal circumstances means PJM would pick up the cleaner/cheaper units in the case of no special circumstances (i.e., no voltage reductions, loss of grid stability, no geographically located load pockets, no brownouts, no blackouts, etc.).

N.J.A.C. 7:27-19.29(k)2: *The baseline and actual emissions in total tons;*

Status: Compliant

The Baseline and Actual Emissions in total tons for measure #1 above (water injection on Burlington Units No. 9 and 11 and/or Essex Units No. 10, 11, and 12) are available as part of the Daily HEDD Emission Reduction Calculations provided in **Attachment 3**. Reductions from measures #2 and #3 cannot be quantified because it is impossible to determine which units would have operated if the protocol were not implemented. Likewise true “baseline emissions” cannot be calculated because it is impossible to determine what units would have been operated if the protocol were not implemented. However, in accordance with the Department’s request, PSEG Fossil has calculated the baseline emissions (BE) and required emission reductions (ER) based on the HEDD units that were operated on each HEDD.

N.J.A.C. 7:27-19.29(k)3: *For measures not associated with an EGU unit, the annual report shall include any documentation required by the approved 2009 Protocol*

Status: N/A

All of the measures PSEG Fossil has described in its 2009 Protocol are associated with EGUs, and therefore this section is Not Applicable.

N.J.A.C. 7:27-19.29(k)4: For measures associated with an EGU unit, the annual report must include:

- i. The total hours of operation for each EGU;
- ii. The type of fuel combusted;
- iii. The hourly fuel use;
- iv. The hourly load in MW;
- v. The hourly heat input in MMBtu/hr;
- vi. The hourly water injection rate;
- vii. The hourly ammonia injection rate;
- viii. The catalytic bed temperature;
- ix. The CEM values or documentation on how the baseline and actual NO_x emission rates were calculated;
- x. Any other data used to calculate baseline and actual NO_x emissions;
- xi. The calculations and results for:
 - (1) Baseline NO_x emissions (BE in Equation 1, at (c) above);
 - (2) Actual NO_x emissions after emission reduction measures;
 - (3) Required NO_x emission reduction (ER in Equation 1, at (c) above); and
 - (4) Actual NO_x emission reduction (BE – actual emissions after emission reduction measures);
- xii. Fuel prices; and
- xiii. Any other documentation required by the Department in the approved 2009 Protocol.

Status: Compliant

By Subpart:

- i. The total hours of operation for each HEDD EGU is equal to the sum of Operating Time from hour 00:00 through 23:59 on the HEDD in question as calculated using the methods of 40 CFR Part 75 (including Appendix D, E, and G and as well as the Low Mass Emissions (LME) provisions in 40 CFR 75.19). For the purposes of inclusion in this report, the total hours of operation for HEDD units have been included in **Attachment 4** if the unit operated during any period during that HEDD.
- ii. The types of fuels combusted by all HEDD units are provided as part of the general unit list in this annual report.
- iii. Hourly fuel use is provided as hourly heat input for each HEDD EGU, which is equal to the sum of Operating Time from hour 00:00 through 23:59 on the HEDD in question as calculated using the methods of 40 CFR Part 75 (including Appendix D, E

- & G and LME provisions in 40 CFR 75.19). For the purposes of inclusion in this report, the total hours of operation for HEDD units have been included in **Attachment 4** if the unit operated during any period during that HEDD.
- iv. Hourly load in MW [as submitted to the United States Environmental Protection Agency (USEPA) via its Emissions Collection and Monitoring System (ECMPS)] is provided in **Attachment 4** if the unit operated during any period during that HEDD.
 - v. Hourly heat input for each HEDD EGU is equal to the sum of the heat input from hour 00:00 through 23:59 on the HEDD in question as calculated using the methods of 40 CFR Part 75 (including Appendix D, E, and G, and the LME provisions in 40 CFR 75.19). For the purposes of inclusion in this report, the total heat input by fuel for HEDD units have been included in **Attachment 4** if the unit operated during any period during that HEDD.
 - vi. PSEG Fossil owns and operates the following HEDD units which were equipped with water injection control systems specifically as an emissions reduction measure under this section:
 - a. Burlington Units No. 9 and 11
 - b. Essex Units No. 10, 11, and 12

Burlington Units No. 9 and 11 and Essex Units No. 10, 11, and 12 are required to operate their water injection systems whenever they are in operation on a HEDD, except for periods of startup, shutdown, or mechanical safety testing². As such, during HEDDs when these units are in operation, the hourly water injection rate (in gallons per minute) has been provided for such times as the systems are in service for the 24 hours (from hour 00:00 through 23:59) on the HEDD in question in **Attachment 2**.

PSEG Fossil owns and operates various other HEDD units which utilize water injection control systems (e.g. Edison Units No. 1, 2, and 3). However, these systems were installed and operated during NJDEP's 2005-2007 "baseline" analysis. As such, water injection usage for these units is not included as an emissions reduction measure in PSEG Fossil's 2009 Protocol and is not included as part of this report.

- vii. None of PSEG Fossil's HEDD units utilize ammonia injection; therefore this provision is not applicable.
- viii. None of PSEG Fossil's HEDD units utilize catalysts; therefore this provision is not applicable.

² Additionally, Essex may operate its water injection systems during fuel transfer periods as the units can operate on both natural gas and distillate oil. The Burlington units only burn distillate oil.

- ix. Daily NO_x Rates for each HEDD EGU shall be equal to the sum of the daily NO_x pounds divided by the sum of the daily heat input (as defined in Subpart iii) from hour 00:00 through 23:59 on the HEDD in question as calculated using the methods of 40 CFR Part 75, including Appendix D, E, and G, and the LME provisions in 40 CFR 75.19. For the purposes of inclusion in this report, the daily NO_x Rate for HEDD units have been included in **Attachment 4** if the unit operated during any period during that HEDD.
- x. The 40 CFR 75 data provided in Subpart i through ix above has been previously submitted to the USEPA via ECMPS on a quarterly basis. Data submitted through this system is published on the USEPA's Clean Air Markets Division (CAMD) – Air Markets Program Data site (available at <http://ampd.epa.gov/ampd/>). CAMD data was used in the establishment of the HEDD rule by both NJDEP (by reference in N.J.A.C. 7:27-19.29 Equation 1) and PSEG Fossil (through its calculations submitted in the 2009 Protocol). Since data provided in Subpart i through ix above has been previously submitted to USEPA via ECMPS, no further data is required to complete Equation 1.
- xi. The Baseline and Actual Emissions in total tons for the implementation of water injection on Burlington Units No. 9 and 11 and Essex Units No. 10, 11 and 12 are available as part of the Daily HEDD Calculations as provided in **Attachment 4**. Reductions from other measures cannot be quantified because it is impossible to determine which units would have operated if the protocol were not implemented. Likewise true “baseline emissions” cannot be calculated because it is impossible to determine what units would have been operated if the protocol were not implemented. However, in accordance with the Department’s request, PSEG Fossil has calculated “BE” and “ER” based on the HEDD units that were operated on each HEDD.
- xii. PSEG Fossil has not implemented emissions reduction measures related to fuel prices (e.g., burning natural gas instead of oil to reduce emissions on its dual fuel-fired HEDD units) pursuant to this section. Therefore, they are not required to be listed in this report.
- xiii. Other documentation as required in PSEG Fossil’s 2009 Protocol that is not provided in other attachments is listed below:
 - 1. *Provide documentation if a MEG alert is called and if Kearny Units No. 10 and 11, Mercer Unit No. 3, and Sewaren Unit No. 6 operated, as well as their time of operation. Also, provide documentation that no “MEG alert” units were operated on non-“MEG alert” HEDDs.*
 - 2. *Provide documentation on reasons why Bergen Unit No. 3, Burlington Unit No. 8, Edison Units No. 1, 2, and 3, Hudson Unit No. 1, Kearny Unit No. 9, National Park Unit No. 1, Salem Unit No. 3, and Sewaren Units No. 1, 2, 3, and 4 operated during an HEDD and their time of operation. Such reasons could include, but are not limited to: forced outages, nuclear or coal plant*

load reductions, synchronous condenser to reduce grid emissions, load pocket deficiencies, transmission line outages/issues, natural disasters, emergency conditions, etc.

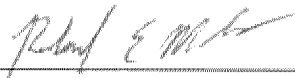
Pursuant to #1 above, none of the units listed operated on a MEG alert day. Mercer Unit No. 3 and Sewaren Unit No. 6 were placed in “MEG Alert” dispatch status with PJM, and did not operate during any HED days in 2014.

Pursuant to #2 above, reasons why any of the above units may have operated on an HEDD is supplied in **Attachment 5**.

**PSEG FOSSIL LLC HIGH ELECTRIC DEMAND DAY ANNUAL REPORT
FOR THE PERIOD JANUARY 1, 2014 - DECEMBER 31, 2014**

Certification Pursuant to N.J.A.C. 7:27-1.39(a)1.

I certify under penalty of law that I believe the information provided in this document is true, accurate and complete. I am aware that there are significant civil and criminal penalties, including the possibility of fine or imprisonment or both, for submitting false, inaccurate or incomplete information.



Richard E. Modes
Fossil Environmental Specialist

Certification Pursuant to N.J.A.C. 7:27-1.39(a)2.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attached documents and, based upon my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil and criminal penalties, including the possibility of fine or imprisonment or both, for submitting false, inaccurate or incomplete information.



Mark F. Strickland
Director – Fossil Environmental Affairs

Attachment 1
Approved HEDD Protocol



State of New Jersey

DEPARTMENT of ENVIRONMENTAL PROTECTION

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

Division of Air Quality
Bureau of Air Permits
401 E. State Street, 2nd floor, P.O. Box 27
Trenton, NJ 08625-0027

BOB MARTIN
Commissioner

October 13, 2010

John Paul Cowan
PSEG Power - VP Operations
80 Park Plaza
Newark, NJ 07101

REFERENCE: 2009 HEDD Emission Reduction Compliance Demonstration Protocol

Dear Mr. Cowan:

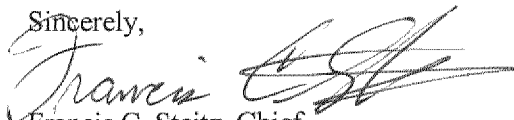
The Department has reviewed your 2009 HEDD Emission Reduction Compliance Demonstration Protocol (2009 Protocol), submitted on April 22, 2009, and subsequent revisions to the 2009 Protocol, submitted on May 1, 2009, July 4, 2009, August 4, 2009, September 14, 2009, September 25, 2009 and August 25, 2010.

Pursuant to N.J.A.C. 7:27-19.29(g), the Department, hereby, approves the revised 2009 Protocol submitted by PSEG on August 25, 2010. The approved 2009 Protocol may be revised in accordance with N.J.A.C. 7:27-19.29(h). Pursuant to N.J.A.C. 7:27-19.29(b)4ii, adopted on March 20, 2009, PSEG must implement this approved 2009 Protocol on each HEDD that occurs through September 2014, or until a revised 2009 Protocol is approved by the Department.

During the proposal of N.J.A.C. 7:27-19.29, and other associated changes to N.J.A.C. 7:27-19, which was published in the August 4, 2008 New Jersey Register, the Department received comments requesting additional time to comply with the NOx RACT emission limits at N.J.A.C. 7:27-19.5(g). In the adoption, which was published in the April 20, 2009 New Jersey Register, The Department committed to propose additional time for partially controlled turbines to comply with these emission limits. That amendment is expected to be proposed later this year. If the rule is amended, any approved 2009 protocol may need to be revised in order to comply with the changes to N.J.A.C. 7:27-19.29

If you have any question concerning this approval or the requirements at N.J.A.C. 7:27-19.29, please call Mr. Michael Hogan at (609)-633-1124.

Sincerely,


Francis C. Steitz, Chief
Bureau of Air Permits

CC: J. Preczewski, P.E., Assistant Director AQPP
B. Bouzid, Section Chief
Y. Doshi, Supervisor
M. Hogan
T. Key
T. McNevin



August 25, 2010

Mr. John Preczewski
Division of Air Quality
New Jersey Department of Environmental Protection
401 East State Street
PO Box 027
Trenton, New Jersey 08625-0027

**RE: PSEG Fossil LLC
Submittal of 2009 HEDD Emission Reduction Compliance Demonstration Protocol
N.J.A.C. 7:27-19.29**

Dear Mr. Preczewski:

PSEG Fossil LLC (PSEG Fossil) is pleased to submit the attached 2009 High Electric Demand Day (HEDD) Emission Reduction Compliance Demonstration Protocol (2009 Protocol) pursuant to the requirements of New Jersey Administrative Code (N.J.A.C.) 7:27-19.29. Please note that PSEG Fossil submitted its proposed 2009 Protocol on May 1, 2009. PSEG Fossil achieved compliance with the provisions of N.J.A.C. 7:27-19.29(b)4 since May 1, 2009 by complying with N.J.A.C. 7:27-19.29(b)4ii which reads:

"The Department-approved method of demonstrating in the 2009 Protocol that implementation of the 2009 Protocol on each high electric demand day that occurred starting January 1, 2005 through December 31, 2007 would have resulted in at least as many tons of NO_x emission reductions as would have been required by Equation 1 below. The owner or operator shall demonstrate that the owner or operator implemented the 2009 Protocol, or a modified protocol approved by the Department pursuant to (h) below, on each high electric demand day during the calendar year of the applicable annual report."

Should you have any questions or require additional information, please do not hesitate to contact me at (973) 430-7911 or Erin Gorman at (973) 430-6359.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark F. Strickland".

Mark F. Strickland, P.E.
Director – Fossil Environmental Affairs

cc: Michael Hogan (NJDEP)

**PSEG FOSSIL LLC 2009 HEDD EMISSION REDUCTION COMPLIANCE
DEMONSTRATION PROTOCOL**

Certification Pursuant to N.J.A.C. 7:27-1.39(a)1.

I certify under penalty of law that I believe the information provided in this document is true, accurate and complete. I am aware that there are significant civil and criminal penalties, including the possibility of fine or imprisonment or both, for submitting false, inaccurate or incomplete information.



Mark F. Strickland
Director – Fossil Environmental Affairs

Certification Pursuant to N.J.A.C. 7:27-1.39(a)2.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attached documents and, based upon my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil and criminal penalties, including the possibility of fine or imprisonment or both, for submitting false, inaccurate or incomplete information.



John Paul Cowan
Vice President – Fossil Operations



PSEG Fossil LLC

**2009 HEDD Emission Reduction Compliance
Demonstration Protocol**

Submitted To:

**Assistant Director, Air Quality Permitting Element
Division of Air Quality
New Jersey Department of Environmental Protection
401 East State Street
P.O. Box 027
Trenton, New Jersey 08625-0027**

Original Submittal: May 1, 2009

Final Submittal: August 25, 2010

**SUBMITTED BY: PSEG FOSSIL LLC
80 PARK PLAZA, T25H
NEWARK, NEW JERSEY 07102**

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1.0 INTRODUCTION

On August 4, 2008, the New Jersey Department of Environmental Protection (NJDEP or the Department) proposed new rules and amendments governing the control and prohibition of Volatile Organic Compounds (VOC) and Nitrogen. On March 20, 2009, the rules were adopted and published in the New Jersey Register, became effective on April 20, 2009 and operative on May 19, 2009. These rules impact several source categories of emissions including stationary combustion turbines and boilers serving electric generating units that operate on high electric demand days (HEDDs). The Department lowered the emission standards for high electric demand day (HEDD) units. HEDD units emit significant quantities of nitrogen oxides (NO_x) on HEDDs, which are typically during high temperature and high ozone days in the summer.

Pursuant to New Jersey Administrative Code (N.J.A.C.) 7:27-19.1, HEDD means the day following a day in which the next day forecast load is estimated to have a peak value of 52,000 megawatts (MW) or higher as predicted by the Pennsylvania-Jersey-Maryland¹ (PJM) Interconnection 0815 update to its Mid Atlantic Region Hour Ending Integrated Forecast Load, available from PJM Interconnection at <http://oasis.pjm.com/doc/projload.txt>. N.J.A.C. 7:27-19.1 defines an HEDD unit, as an electrical generating unit, capable of generating 15 MW or more, that commenced operation prior to May 1, 2005, and that operated less than or equal to an average of 50 percent of the time during the ozone seasons of 2005 through 2007.

PSEG Fossil LLC (PSEG Fossil) owns and operates the following HEDD units in the State of New Jersey:

¹ Pennsylvania-New Jersey-Maryland Interconnection, LLC, is a regional transmission organization (RTO) that coordinates the movement of wholesale electricity in all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia. Acting neutrally and independently, PJM operates the world's largest competitive wholesale electricity market and ensures the reliability of the largest centrally dispatched grid in the world.

Combustion Turbines

Facility ID	Facility Name	Equipment ID	Unit No.	No. of Turbines	Fuel(s)	Model
02488	Bergen	E5	3	1	Natural Gas	P&W FT4
45979	Burlington	E4	8	1	No. 2 Fuel Oil	P&W FT4
		E5-E12	9	8	No. 2 Fuel Oil	P&W FT4
		E17-E24	11	8	No. 2 Fuel Oil	P&W FT4
		E36-E39	12	4	Natural Gas / No. 2 Fuel Oil	GE LM6000
17824	Edison	E1-E8	1	8	Natural Gas / No. 2 Fuel Oil	P&W FT4
		E9-E16	2	8	Natural Gas / No. 2 Fuel Oil	P&W FT4
		E17-E24	3	8	Natural Gas / No. 2 Fuel Oil	P&W FT4
07627	Essex	E1	9	1	Natural Gas / No. 2 Fuel Oil	GE 7EA
		E2-E9	10	8	Natural Gas / No. 2 Fuel Oil	P&W FT4
		E10-E17	11	8	Natural Gas / No. 2 Fuel Oil	P&W FT4
		E18-E25	12	8	Natural Gas / No. 2 Fuel Oil	P&W FT4
12200	Kearny	E4	9	1	Natural Gas	P&W FT4
		E5-E12	10	8	Natural Gas / No. 2 Fuel Oil	P&W FT4
		E13-E20	11	8	Natural Gas / No. 2 Fuel Oil	P&W FT4
		E35-E38	12	4	Natural Gas / No. 2 Fuel Oil	GE LM6000
41810	Linden	E6	5	1	Natural Gas / No. 2 Fuel Oil	GE 7EA
		E7	6	1	Natural Gas / No. 2 Fuel Oil	GE 7EA
		E8	7	1	Natural Gas / No. 2 Fuel Oil	GE 7EA
		E9	8	1	Natural Gas / No. 2 Fuel Oil	GE 7EA
61057	Mercer	E5-E12	3	8	No. 2 Fuel Oil	P&W FT4
55778	National Park	E1	1	1	No. 2 Fuel Oil	P&W FT4
65500	Salem	E39-E40	3	2	No. 2 Fuel Oil	P&W FT4
18068	Sewaren	E7-E14	6	8	No. 2 Fuel Oil	P&W FT4

Notes: Bergen = Bergen Generating Station; Burlington = Burlington Generating Station; Edison = Edison Generating Station; Essex = Essex Generating Station; Kearny = Kearny Generating Station; Linden = Linden Generating Station; Mercer = Mercer Generating Station; National Park = National Park Generating Station; Salem = Salem Generating Station; Sewaren = Sewaren Generating Station; P&W = Pratt & Whitney; and GE = General Electric.

Boilers

Facility ID	Facility Name	Equipment ID	Unit No.	Fuel(s)	Model
12202	Hudson	E1	1	Natural Gas / No. 6 Fuel Oil	Babcock & Wilcox
18068	Sewaren	E1	1	Natural Gas / No. 6 Fuel Oil	Combustion Engineering
		E2	2	Natural Gas / No. 6 Fuel Oil	Combustion Engineering
		E3	3	Natural Gas / No. 6 Fuel Oil	Combustion Engineering
		E4	4	Natural Gas / No. 6 Fuel Oil	Combustion Engineering

Note: Hudson = Hudson Generating Station

Pursuant to the requirements of N.J.A.C. 7:27-19.29(b)2, the owner or operator of an HEDD unit(s) is required to submit to the Department a 2009 HEDD Emission Reduction Compliance Demonstration Protocol (2009 Protocol) by the operative date of

the rule, which is May 19, 2009.

Since the operative date of the rule occurs after NJDEP's initial targeted HEDD compliance period (May 1, 2009), compliance with N.J.A.C. 7:27-19.29(b)3 and N.J.A.C. 7:27-19.29(g) can be achieved by the implementation of this proposed 2009 Protocol until the Department approves the Protocol. This document is PSEG Fossil's proposed 2009 Protocol. In cooperation with the NJDEP, PSEG has agreed to voluntarily initiate the operational elements as outlined in this protocol as of May 1, 2009. As a compliance mechanism, PSEG will operate in accordance with the protocol.

1.1 HEDD Compliance Strategy

The NO_x emission reduction measures in this 2009 protocol were established based on an in-depth analysis of NO_x emissions from PSEG Fossil's HEDD units on all HEDDs that occurred during calendar years 2005, 2006 and 2007. Based on discussions and correspondence with NJDEP², it was determined that there were thirty-nine (39) HEDDs from January 1, 2005 through December 31, 2007 comprised of the following:

6/28/05	7/11/05	7/12/05	7/18/05	7/19/05	7/20/05
7/21/05	7/22/05	7/25/05	7/26/05	7/27/05	8/3/05
8/4/05	8/5/05	8/11/05	7/11/06	7/17/06	7/18/06
7/26/06	7/27/06	7/28/06	7/31/06	8/1/06	8/2/06
8/3/06	8/4/06	8/7/06	6/19/07	6/27/07	6/28/07
7/9/07	7/10/07	7/11/07	8/1/07	8/2/07	8/3/07
8/7/07	8/8/07	8/9/07			

² NJDEP document *2009 Protocol Comments, General Comments on Protocol Development* - The Department has evaluated the historical load data that is available in order to define a set of days that should be evaluated as HEDDs having occurring during the calendar years 2005-2007. The definition of HEDD is based on PJM's 8:15 load forecast for the next day, however, this data is not available historically so it is impossible to determine which days would actually have been an HEDD by definition. However, PJM's 5:15 forecast and 11:15 forecast are both available historically as is the actual load that was required on each day. Realizing that forecast load is highly unpredictable, the Department decided that the list of days to be evaluated, in each 2009 Protocol, should include those days on which the 5:15 forecast and the 11:15 forecast were both 52,000 or more and the actual load required was 52,000 or more. This method supports the intent of the rule because the intent was to get reductions on the high demand days, on which most of the uncontrolled HEDD units were operated. This method also maintains the integrity of the definition of an HEDD by using the available forecasted load as a determining factor. By combining these two ideas, this method eliminates days on which the forecast may have been above 52,000 but the actual demand was not that high. This method produces 39 HEDDs for evaluation (see the attached list).

After determining these HEDDs, PSEG Fossil applied hierarchical steps of NO_x emission reduction measures to its HEDD units on each of the 39 HEDDs in 2005-2007, until sufficient NO_x reductions were achieved to exceed the emission reduction goals of Equation 1 outlined in N.J.A.C. 7:27-19.29(c).

Based upon this analysis, as well as input from the Department during formative meetings and discussions with NJDEP staff, PSEG Fossil developed the following NO_x emission reduction measures for its 2009 Protocol:

1. Install water injection to achieve at least thirty percent (30%) NO_x emission reductions on a total of forty (40) Pratt & Whitney FT4 combustion turbines at Burlington and Essex³, which represent approximately 900 MW of electric power generation, and utilize the water injection systems on these units on HEDDs;
2. Place certain higher NO_x-emitting units on Maximum Emergency Generation (MEG) alert status on HEDDs, which means that these units would not be operated unless directed by PJM through the declaration of a MEG alert, in order to prevent or mitigate voltage reductions or interruptions in electric service, or both. The units involved are thirty-two (32) FT4 turbines in the "Hi-Cap" configuration⁴ (Kearny Units No. 10 and 11, Mercer Unit No. 3 and Sewaren Unit No. 6), which represent approximately 500 MW of electric power generation; and
3. Retrospectively shifted load on HEDDs from the remaining higher NO_x-emitting sources in PSEG Fossil's generating fleet (Bergen Unit No. 3, Burlington Unit No. 8, Edison Units No. 1, 2, and 3, Hudson Unit No. 1, Kearny Unit No. 9, National Park Unit No. 1, Salem Unit No. 3, Sewaren Units No. 1, 2, 3 and 4) to cleaner PSEG Fossil emission sources (Bergen Units No. 1 and 2, Essex Unit No. 9 and Linden Units No. 1 and 2). It should be noted that the actual operation of the sources listed in this measure is directed by PJM through a bidding process, which is largely based on the cost of generation, geographic location of the grid's electric needs and the availability of capacity to generate electricity. However, PSEG Power will encourage PJM to call for operation of Bergen Units No. 1 and 2, Essex Unit No. 9 and Linden Units No. 1 and 2 as well as Linden Units No. 5,

³ 16 FT4 turbines at Burlington will be equipped with water injection (Units No. 9 and 11), and 24 FT4 turbines at Essex will be equipped with water injection (Units No. 10, 11, and 12). Note that an additional 24 FT4 turbines at Edison are already equipped with water injection (Units No. 1, 2, and 3).

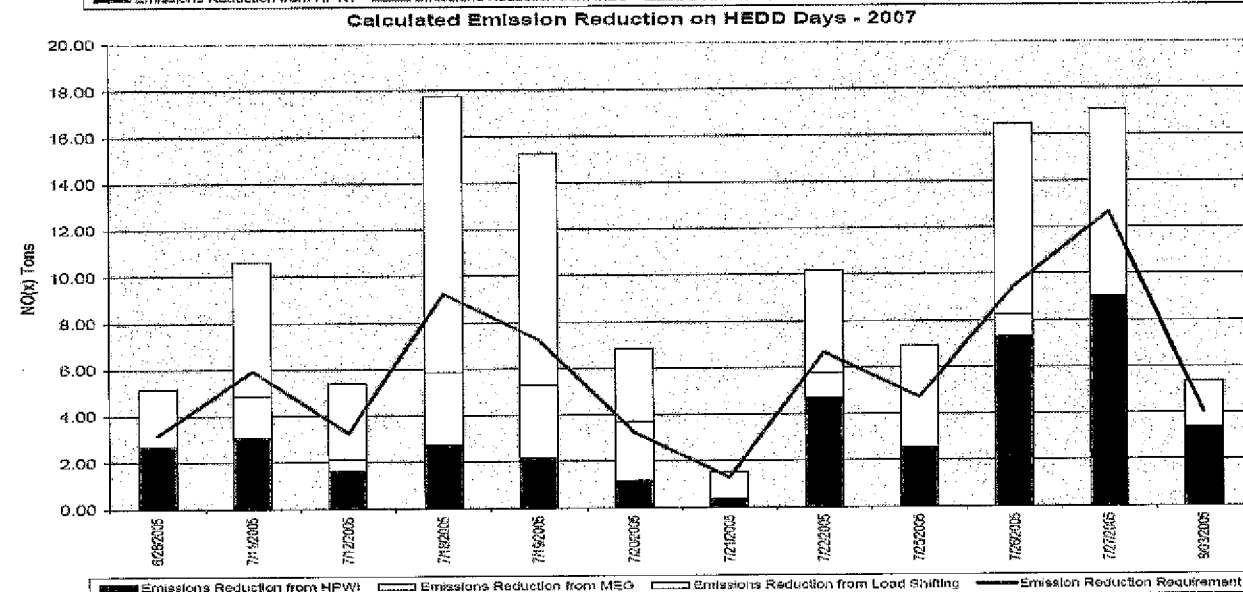
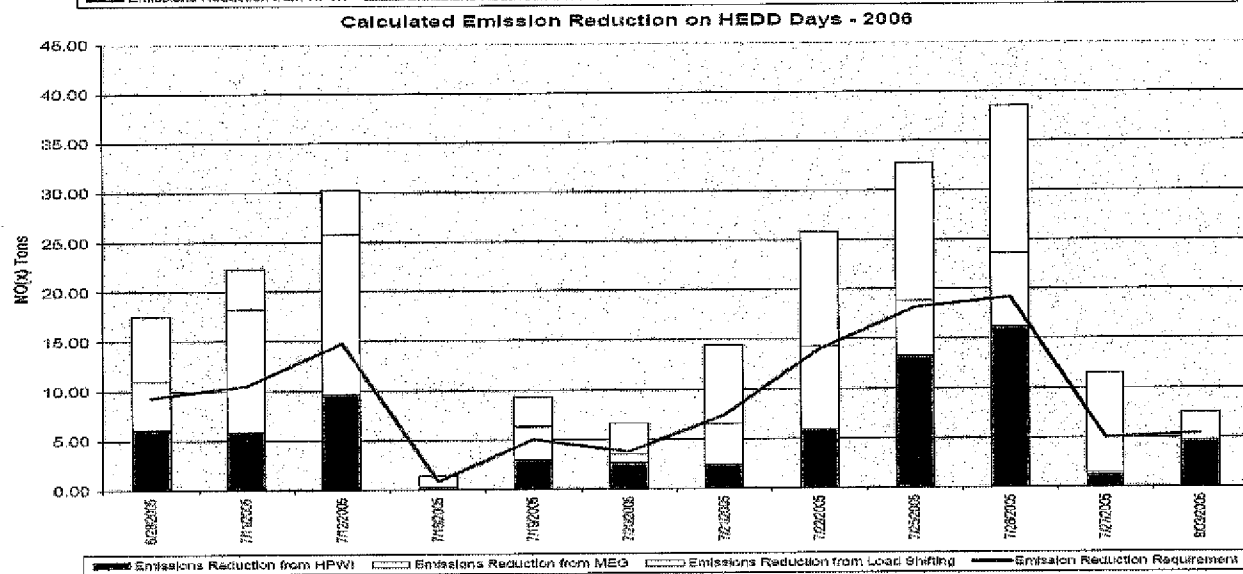
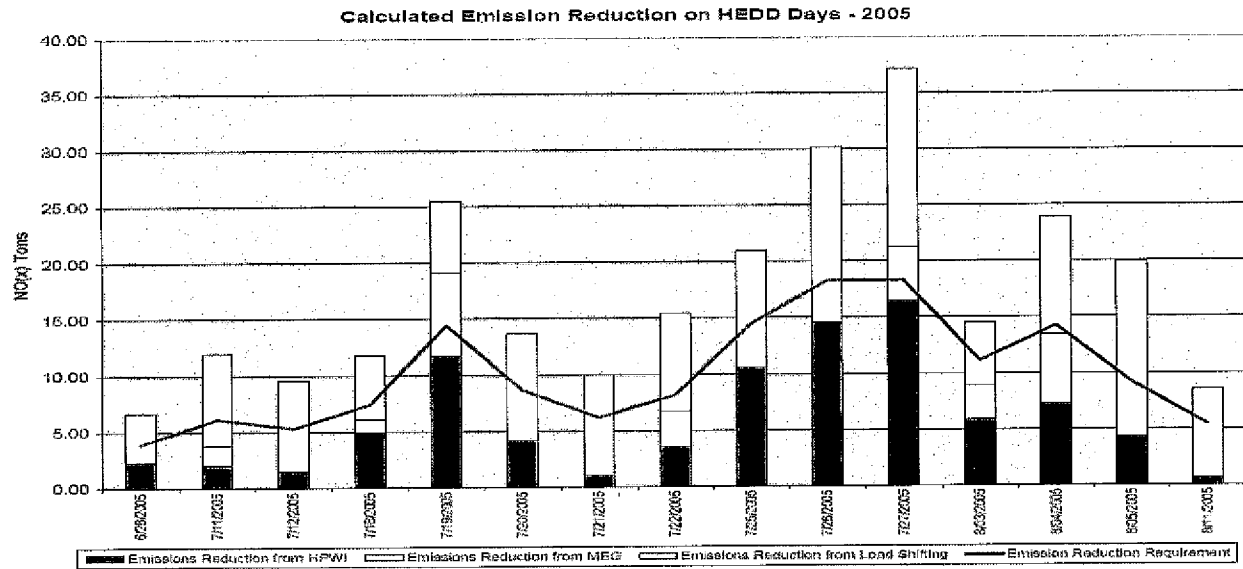
⁴ "Hi-Cap" is an FT4 turbine configuration in which eight (8) FT4 turbines are served by a single electric generator. Other FT4 configurations include "Twin-Pack" (2 FT4s per generator) and "Power-Pack" (1 FT4, 1 generator).

6, 7 and 8, Burlington Unit No. 12 and Kearny Unit No. 12 by offering them at a more economic price per MW based on unit dispatch rates (closely corresponding to heat rates) before calling for Bergen Unit No. 3, Burlington Unit No. 8, Edison Units No. 1, 2, and 3, Hudson Unit No. 1, Kearny Unit No. 9, National Park Unit No. 1, Salem Unit No. 3, Sewaren Units No. 1, 2, 3 and 4 under normal circumstances. Normal circumstances means PJM would pick up the cleaner/cheaper units in the case of no special circumstances (i.e., no voltage reductions, loss of grid stability, no geographically located load pockets, no brownouts, no blackouts, etc.). It should be noted that there are other factors that affect PJM's dispatching of PSEG Fossil's units (i.e., lengthy startup durations) which could result in dirtier units being dispatched prior to cleaner units, but are unlikely to significantly contribute to PSEG Fossil's NO_x emissions on HEDDs.

The results of the retrospective application of these NO_x reduction measures exceeded the emission reductions (ER) that would be required as specified by Equation 1 of N.J.A.C. 7:27-19.29(c). PSEG forecasts and the Department agrees that by applying water injection technology (Measure 1 above), placing certain units in MEG status (Measure 2 above) and encouraging PJM to call for operation of Bergen Units No. 1 and 2, Essex Unit No. 9 and Linden Units No. 1 and 2 as well as Linden Units No. 5, 6, 7 and 8, Burlington Unit No. 12 and Kearny Unit No. 12 by offering them at a more economic price per MW based on unit dispatch rates (closely corresponding to heat rates) before calling for Bergen Unit No. 3, Burlington Unit No. 8, Edison Units No. 1, 2, and 3, Hudson Unit No. 1, Kearny Unit No. 9, National Park Unit No. 1, Salem Unit No. 3, Sewaren Units No. 1, 2, 3 and 4 under normal circumstances (Measure 3 above) will result in PJM dispatch of cleaner units and subsequent NO_x reductions. By applying the protocol retrospectively to quantify the NO_x reductions over a three year period, there is a high expectation that similar NO_x reductions will be realized in any reasonable HEDD scenario in the future. A summary of the supporting calculations as requested by NJDEP are included as Appendix A of this report. The following table and charts display PSEG Fossil's NO_x emission reductions on each of the 39 HEDDs between 2005 and 2007.

Calculated NOx Emission Reductions for HEDDs 2005-2007

HEDD	Emission Reduction Requirement	Emissions Reduction from HPWI	Emissions Reduction from MEG	Emissions Reduction from Load Shifting	Total Emissions Reduction	Percentage Reduced Above ER
6/28/2005	3.92	2.25	0	4.36	6.61	69%
7/11/2005	6.18	1.98	1.80	8.12	11.90	92%
7/12/2005	5.35	1.41	0	8.08	9.49	77%
7/18/2005	7.48	4.90	1.18	5.69	11.76	57%
7/19/2005	14.47	11.67	7.42	6.34	25.44	76%
7/20/2005	8.69	4.16	0	9.48	13.64	57%
7/21/2005	6.24	1.01	0	8.96	9.97	60%
7/22/2005	8.22	3.55	3.18	8.70	15.42	88%
7/25/2005	14.51	10.56	0	10.34	20.90	44%
7/26/2005	18.34	14.49	0	15.65	30.14	64%
7/27/2005	18.36	16.47	4.77	15.86	37.10	102%
8/03/2005	11.18	5.86	3.05	5.62	14.54	30%
8/04/2005	14.29	7.23	6.21	10.42	23.87	67%
8/05/2005	9.22	4.29	0	15.66	19.95	116%
8/11/2005	5.47	0.56	0	7.99	8.55	56%
7/11/2006	9.38	6.04	4.95	6.57	17.56	87%
7/17/2006	10.56	5.84	12.39	4.01	22.24	111%
7/18/2006	14.82	9.65	16.14	4.52	30.30	104%
7/26/2006	0.85	0.19	0	1.21	1.40	64%
7/27/2006	5.06	2.94	3.36	2.97	9.28	83%
7/28/2006	3.80	2.59	0.91	3.09	6.59	73%
7/31/2006	7.43	2.37	4.18	7.90	14.44	95%
8/01/2006	14.05	5.89	8.40	11.54	25.83	84%
8/02/2006	18.24	13.28	5.55	13.98	32.80	80%
8/03/2006	19.25	16.20	7.44	14.93	38.57	100%
8/04/2006	5.05	1.19	0.25	10.09	11.53	128%
8/07/2006	5.45	4.72	0	2.72	7.44	36%
6/19/2007	3.19	2.69	0	2.46	5.15	62%
6/27/2007	5.95	3.10	1.75	5.77	10.62	78%
6/28/2007	3.27	1.63	0.49	3.25	5.37	64%
7/09/2007	9.26	2.75	3.08	11.93	17.76	92%
7/10/2007	7.28	2.18	3.11	9.97	15.25	110%
7/11/2007	3.26	1.18	2.51	3.15	6.84	110%
8/01/2007	1.30	0.36	0	1.17	1.54	18%
8/02/2007	6.68	4.70	1.08	4.41	10.19	53%
8/03/2007	4.73	2.56	0	4.37	6.93	47%
8/07/2007	9.52	7.29	0.96	8.20	16.44	73%
8/08/2007	12.68	9.02	0	8.03	17.05	34%
8/09/2007	4.04	3.39	0	1.97	5.36	33%



This demonstration serves as PSEG Fossil's method of compliance with the HEDD component of NJDEP's Ozone Reasonably Achievable Control Technology (RACT) rules pursuant to N.J.A.C. 7:27-19.29(b)4ii which states:

"The Department-approved method of demonstrating in the 2009 Protocol that implementation of the 2009 Protocol on each high electric demand day that occurred starting January 1, 2005 through December 31, 2007 would have resulted in at least as many tons of NO_x emission reductions as would have been required by Equation 1 below."

Equation 1 is more specifically outlined and discussed in Section 2.3 of this Protocol.

Also, pursuant to the second sentence of N.J.A.C. 7:27-19.29(b)4ii, PSEG Fossil will demonstrate that it implemented the 2009 Protocol, or a modified protocol approved by the Department, on each HEDD during the calendar year of the applicable annual report. This demonstration will be specifically outlined in the annual report.

The following sections of this 2009 Protocol contain the regulatory requirements of N.J.A.C. 7:27-19.29.

2.0 2009 PROTOCOL REQUIREMENTS

Pursuant to N.J.A.C. 7:27-19.29(b)3, as an owner or operator of HEDD units, PSEG Fossil must obtain the NO_x reductions determined by Equation 1 of N.J.A.C. 7:27-19.29(c), using one or more measures that meet the requirements of N.J.A.C. 7:27-19.29(d) and that are listed in the 2009 Protocol, on each HEDD.

It is currently forecasted that the following HEDD units will not be able to comply with NJDEP's new NO_x RACT requirements beginning in May 1, 2015:

Facility ID	Facility Name	Equipment ID	Unit No.	No. of Turbines	Fuel(s)	Model
02488	Bergen	E5	3	1	Natural Gas	P&W FT4
45979	Burlington	E4	8	1	No. 2 Fuel Oil	P&W FT4
12200	Kearny	E4	9	1	Natural Gas	P&W FT4
		E5-E12	10	8	Natural Gas / No. 2 Fuel Oil	P&W FT4
		E13-E20	11	8	Natural Gas / No. 2 Fuel Oil	P&W FT4
61057	Mercer	E5-E12	3	8	No. 2 Fuel Oil	P&W FT4
55778	National Park	E1	1	1	No. 2 Fuel Oil	P&W FT4
65500	Salem	E39-E40	3	2	No. 2 Fuel Oil	P&W FT4
18068	Sewaren	E7-E14	6	8	No. 2 Fuel Oil	P&W FT4

As currently configured, these units will likely be taken out of service prior to May 1, 2015. NJDEP has indicated that it would propose a revision to the final rule to allow for these units to be classified as "emergency use only" meaning these units could continue to operate during brownouts and blackouts. PSEG Fossil also anticipates that these units will have the ability to operate for testing and maintenance on days which the Department does not forecast the air quality anywhere in New Jersey to be "unhealthy for sensitive groups", "unhealthy" or "very unhealthy" as defined in the EPA's Air Quality Index at www.airnow.gov, to ensure availability during a grid emergency.

2.1 Extensions Offered in Expected Revised Rule

Based on several of NJDEP's responses to comments on the HEDD rule, which was adopted on March 20, 2009, and discussions with the Department, NJDEP will propose some revisions to the adopted rule. PSEG Fossil expects these revisions to contain different applicable dates for achieving NO_x emission reductions pursuant to N.J.A.C. 7:27-19.29 if the HEDD unit is eligible for and the owner or operator chooses to take

advantage of an exemption from the applicable 2015 emission rate that the Department will be proposing to add to the rule. As such, PSEG Fossil proposes to continue to obtain its NO_x emission reductions in accordance with its 2009 Protocol and the expected requirements of the revised rule from May 1, 2015 through May 31, 2017. PSEG Fossil expects the revised rule to allow for an additional 2 years and 1 month to operate, without complying with the applicable 2015 emission rate, any HEDD unit that meets the following:

- 1) Installed a NO_x emission control apparatus with a control efficiency of at least 30 percent;
- 2) Control apparatus commenced operation after January 23, 1994 but prior to the operative date of the expected revised rule; and
- 3) HEDD units taken out of service prior to December 31, 2016.

PSEG Fossil has the following HEDD units that meet the requirements of the Department's expected proposal through May 1, 2015:

Facility ID	Facility Name	Equipment ID	Unit No.	No. of Turbines	Fuel(s)	Model
45979	Burlington	E5-E12	9	8	No. 2 Fuel Oil	P&W FT4
		E17-E24	11	8	No. 2 Fuel Oil	P&W FT4
17824	Edison	E1-E8	1	8	Natural Gas / No. 2 Fuel Oil	P&W FT4
		E9-E16	2	8	Natural Gas / No. 2 Fuel Oil	P&W FT4
		E17-E24	3	8	Natural Gas / No. 2 Fuel Oil	P&W FT4
07627	Essex	E2-E9	10	8	Natural Gas / No. 2 Fuel Oil	P&W FT4
		E10-E17	11	8	Natural Gas / No. 2 Fuel Oil	P&W FT4
		E18-E25	12	8	Natural Gas / No. 2 Fuel Oil	P&W FT4

Pursuant to the above criteria:

- 1) These HEDD units have installed water injection which provides greater than 30 percent NO_x emission control.
- 2) The Burlington FT4s commenced operation of their water injection systems on May 1, 2009. The Edison FT4s commenced operation of their water injection systems on May 24, 1999. The Essex FT4s commenced operation of their water injection systems on May 1, 2009.
- 3) These HEDD units will be taken out of service prior to December 31, 2016.

With the expected proposed revision to the final rule (as mentioned above), these units will be able to comply with the expected proposed revised NO_x RACT requirements beginning on May 1, 2015 through May 31, 2017. PSEG Fossil also expects that these units, in addition to PSEG Fossil's other operational HEDD and non-HEDD units, will have the ability to participate in PSEG Fossil's NO_x Averaging Plan as a means of complying with their NO_x RACT emission limits through May 31, 2017.

2.2 N.J.A.C. 7:27-19.29(d)

N.J.A.C. 7:27-19.29(d) contains a list of information required to be included in the 2009 Protocol.

2.3 N.J.A.C. 7:27-19.29(d)1

The 2009 Protocol must include the calculations performed in N.J.A.C. 7:27-19.29(c) for Emission Factor (EF) and Reduction Factor (RF). For the purposes of this protocol, calculations were performed for each HEDD that occurred starting January 1, 2005 through December 31, 2007 using Equation 1 in N.J.A.C. 7:27-19.29(c), which is described below.

Equation 1

$$ER = (BE \div EF) \times RF$$

Where:

ER, BE, EF and RF are in units of tons of NO_x per high electric demand day (t/HEDD);

ER (Emission Reduction) = The total tons of NO_x reductions that is required from an owner or operator on each high electric demand day;

BE (Baseline Emission) = The total tons of NO_x that would be emitted on each high electric demand day, if the owner or operator did not implement any emission reduction measures. This calculation is based on total actual operation of HEDD units and total actual operation of new electric generating

units installed to replace one or more HEDD units for that high electric demand day. Turbines that are HEDD units and designated, pursuant to N.J.A.C. 7:27-19.5(k), to be used for emergency use only shall not be included in this calculation;

EF (Emission Factor) =

The total tons of NO_x that were emitted by all of the owner or operator's HEDD units on July 26, 2005. In order to calculate EF, the owner or operator shall obtain the NO_x emitted, in tons, for each HEDD unit operated on July 26, 2005, from the USEPA Clean Air Markets Division (CAMD) NO_x emission data, which as of May 19, 2009 (the date of this rulemaking) can be found at <http://camddataandmaps.epa.gov/gdm/>; and

RF (Reduction Factor) =

The HEDD NO_x emission reduction factor for each owner or operator shall be the sum of all Unit Reduction Factors (URF). A URF shall be calculated, in tons, for each HEDD unit that operated on July 26, 2005, using the following equation: $URF = (UE \times C)$

Where:

URF (Unit Reduction Factor) = The reduction of NO_x emissions, in tons, emitted by a HEDD unit on July 26, 2005 that would have occurred if the unit had been controlled;

UE (Unit Emissions) = The tons of NO_x emissions emitted by a HEDD unit on July 26, 2005 obtained from the USEPA CAMD NO_x emission data, which as of May 19, 2009 (the date of this rulemaking) can be found at <http://camddataandmaps.epa.gov/gdm/>; and

C (Control Factor) = If the HEDD unit is a combustion turbine that was not controlled with water injection or Selective Catalytic Reduction (SCR) on July 26, 2005, and

the maximum allowable NO_x emission rate of that unit was 0.15 lb/MMBtu or greater on July 26, 2005, then C is equal to 0.4. If the HEDD unit is a boiler that was not controlled with SCR or Selective Non-Catalytic Reduction (SNCR) controls on July 26, 2005 and the maximum allowable NO_x emission rate of that unit was 0.15 lb/MMBtu or greater on July 26, 2005, then C is equal to 0.3. If the HEDD unit is a combustion turbine that was controlled with water injection or SCR on July 26, 2005, or is a boiler that was controlled with SCR or SNCR on July 26, 2005, or had a NO_x emission rate of less than 0.15 lb/MMBtu on July 26, 2005, then C is equal to 0.

Since EF and RF are based upon PSEG Fossil's HEDD units' operation on July 26, 2005, the following table (which also appears in Appendix A) shows the calculations for these values.

Emission Reduction (ER) Calculation pursuant to N.J.A.C. 7:27-19.29(c)

High Electric Demand Day: 7/26/2005								
Station	Unit ID	MW	Heat Input (mmBtu)	NOx Rate (lb/mmBtu)	NOx Rate (lb/MWh)	NOx Emissions (tons)	Control Factor (CF)	Unit Reduction Factor (NOx tons)
Bergen	3	35	739.4	0.700	14.786	0.269	0.4	0.104
Burlington	8	-	-	-	-	-	0.4	-
Burlington	91	365.00	5,452.80	1.20	17.93	3.272	0.4	1.31
Burlington	92	180.00	2,590.30	1.20	17.93	1.434	0.4	0.57
Burlington	93	170.00	2,839.80	1.20	17.93	1.624	0.4	0.31
Burlington	94	201.00	3,002.90	1.20	17.93	1.802	0.4	0.72
Burlington	111	104.00	1,553.30	1.20	17.93	0.932	0.4	0.37
Burlington	112	170.00	2,539.70	1.20	17.93	1.624	0.4	0.81
Burlington	113	135.00	2,016.90	1.20	17.93	1.210	0.4	0.48
Burlington	114	127.00	1,897.40	1.20	17.93	1.138	0.4	0.48
Burlington	121	281	2,679.8	0.099	0.950	0.133	0	-
Burlington	122	312	2,957.0	0.097	0.922	0.144	0	-
Burlington	123	305	2,926.8	0.096	0.921	0.140	0	-
Burlington	124	303	2,929.0	0.099	0.959	0.145	0	-
Edison	11	390	6,052.8	0.260	4.036	0.787	0	-
Edison	12	385	5,976.3	0.260	4.036	0.777	0	-
Edison	13	428	6,642.5	0.260	4.036	0.884	0	-
Edison	14	429	6,668.0	0.260	4.036	0.886	0	-
Edison	21	263	4,082.1	0.260	4.036	0.531	0	-
Edison	22	277	4,299.1	0.260	4.035	0.559	0	-
Edison	23	289	4,485.3	0.260	4.036	0.583	0	-
Edison	24	278	4,314.6	0.260	4.036	0.581	0	-
Edison	31	333	5,169.2	0.260	4.036	0.872	0	-
Edison	32	337	5,230.3	0.260	4.036	0.880	0	-
Edison	33	331	5,137.2	0.260	4.035	0.868	0	-
Edison	34	336	5,214.8	0.260	4.035	0.878	0	-
Essex	9	1,040	10,778.6	0.071	0.739	0.385	0	-
Essex	101	314	4,803.1	0.415	6.347	0.997	0.4	0.399
Essex	102	308	4,711.3	0.415	6.347	0.977	0.4	0.391
Essex	103	314	4,803.1	0.415	6.348	0.997	0.4	0.399
Essex	104	158	2,417.4	0.415	6.348	0.502	0.4	0.201
Essex	111	400	6,118.9	0.445	6.808	1.362	0.4	0.545
Essex	112	404	6,180.1	0.445	6.807	1.375	0.4	0.550
Essex	113	373	5,782.3	0.445	6.807	1.287	0.4	0.515
Essex	114	414	6,333.1	0.445	6.806	1.409	0.4	0.584
Essex	121	504	7,709.8	0.445	6.808	1.716	0.4	0.698
Essex	122	517	7,909.7	0.445	6.808	1.760	0.4	0.704
Essex	123	498	7,818.0	0.445	6.808	1.595	0.4	0.678
Essex	124	489	7,480.3	0.445	6.807	1.564	0.4	0.666
Hudson	1	6,006	65,560.9	0.263	2.429	7.296	0.3	2.189
Kearny	9	99	1,704.2	0.700	12.048	0.596	0.4	0.239
Kearny	10	268	4,813.3	0.700	12.050	1.615	0.4	0.646
Kearny	11	760	13,082.7	0.700	12.050	4.578	0.4	1.832
Kearny	121	228	2,175.3	0.085	0.820	0.093	0	-
Kearny	122	62	516.3	0.088	0.881	0.027	0	-
Kearny	123	219	2,324.2	0.083	0.882	0.097	0	-
Kearny	124	228	2,254.1	0.087	0.858	0.098	0	-
Linden	5	740	8,905.5	0.023	0.278	0.103	0	-
Linden	6	749	9,635.4	0.026	0.340	0.127	0	-
Linden	7	858	10,199.0	0.025	0.293	0.126	0	-
Linden	8	849	10,697.6	0.032	0.400	0.170	0	-
Mercer	3	-	-	-	-	-	0.4	-
National Park	1	-	-	-	-	-	0.4	-
Salem	3	-	-	-	-	-	0.4	-
Sewaren	1	-	-	-	-	-	0.3	-
Sewaren	2	1,598	18,226.2	0.185	2.109	1.885	0.3	0.505
Sewaren	3	1,444	19,610.8	0.243	3.296	2.380	0.3	0.714
Sewaren	4	1,279	19,499.8	0.234	3.575	2.236	0.3	0.668
Sewaren	6	-	-	-	-	-	0.4	-
TOTAL		27,865	358,630			59.281		18.343

Calculation Results:

Emission Factor (EF) = 59.281 tons
 Baseline Emissions (BE) = 59.281 tons
 Reduction Factor (RF) = 18.343 tons

$$ER = \left(\frac{BE}{EF} \right) * RF$$

Emission Reduction (ER) = 18.343 tons

2.4 N.J.A.C. 7:27-19.29(d)2

This section contains a list of measures used to obtain the required emission reductions determined by Equation 1. The measures must result in emission reductions that are real, quantifiable, enforceable, surplus, and are not required to comply with any State or Federal permit, regulation, enforceable agreement, or high electric demand day emission reduction program. Any of the following measures may be considered to achieve the required emission reductions:

- Installation of a control apparatus on an existing HEDD unit that is located in New Jersey, Pennsylvania, Delaware, or Maryland;
- Reduction in the usage of any HEDD unit that is located in New Jersey, Pennsylvania, Delaware, or Maryland;
- Installation of a control apparatus on an existing non-HEDD unit that is located in New Jersey, Pennsylvania, Delaware, or Maryland;
- Commitment to combust natural gas in any HEDD unit that is permitted to combust either natural gas or fuel oil during high electric demand days when it would be economically preferred to combust fuel oil;
- Implementation of an energy efficiency measure in New Jersey, as long as the energy efficiency measure was not committed to prior to May 19, 2009 (the operating date of these amendments);
- Implementation of a demand response measure in New Jersey such as:
 - A measure that shifts load, as long as the demand response measure was not committed to prior to May 19, 2009 (the operating date of these amendments); or
 - A measure that sheds load to clean distributed generation units, as long as the demand response measure was not committed to prior to May 19, 2009 (the operative date of these amendments);
- Implementation of a renewable energy measure in New Jersey, as long as the renewable energy measure was not committed to prior to May 19, 2009 (the operative date of these amendments), and
- Any other measure, approved by the Department that provides NO_x emission reductions and ozone air quality benefits to New Jersey.

As described in Section 1.1 of this protocol, PSEG Fossil's measures to reduce NO_x emissions on HEDDs are:

- Installing water injection to achieve at least 30% NO_x emission reductions on a total of 40 FT4 combustion turbines at Burlington and Essex, which represent approximately 900 MW of electric power generation, and utilizing the water injection systems on these units on HEDDs;
- Placing certain higher NO_x-emitting units on MEG alert status on HEDDs, which means that these units would not be operated unless directed by PJM through the declaration of a MEG alert, in order to prevent or mitigate voltage reductions or interruptions in electric service, or both. The units involved are 32 FT4 turbines in the "Hi-Cap" configuration (Kearny Units No. 10 and 11, Mercer Unit No. 3 and Sewaren Unit No. 6), which represent approximately 500 MW of electric power generation; and
- Promoting load shift on HEDDs from the remaining higher NO_x-emitting sources in PSEG Fossil's generating fleet (Bergen Unit No. 3, Burlington Unit No. 8, Edison Units No. 1, 2, and 3, Hudson Unit No. 1, Kearny Unit No. 9, National Park Unit No. 1, Salem Unit No. 3, Sewaren Units No. 1, 2, 3 and 4) to cleaner PSEG Fossil emission sources (Bergen Units No. 1 and 2, Essex Unit No. 9 and Linden Units No. 1 and 2). It should be noted that the actual operation of the sources listed in this measure is directed by PJM through a cost-based bidding process taking into account the cost of generation, geographic location of the grid's electric needs and the availability of capacity to generate electricity. However, PSEG Power will encourage PJM to call for operation of Bergen Units No. 1 and 2, Essex Unit No. 9 and Linden Units No. 1 and 2 as well as Linden Units No. 5, 6, 7 and 8, Burlington Unit No. 12 and Kearny Unit No. 12 by offering them at a more economic price per MW generally based on unit heat rates before calling for Bergen Unit No. 3, Burlington Unit No. 8, Edison Units No. 1, 2, and 3, Hudson Unit No. 1, Kearny Unit No. 9, National Park Unit No. 1, Salem Unit No. 3, Sewaren Units No. 1, 2, 3 and 4 under normal circumstances. Normal circumstances means PJM would pick up the cleaner/cheaper units in the case of no special circumstances (i.e., no voltage reductions, loss of grid stability, no geographically located load pockets, no brownouts, no blackouts, etc.). It should be noted that there are other factors that affect PJM's dispatching of PSEG Fossil's units (i.e., lengthy startup durations) which could result in dirtier units

being dispatched prior to cleaner units, but are unlikely to significantly contribute to PSEG Fossil's NO_x emissions on HEDDs.

2.5 N.J.A.C. 7:27-19.29(d)3

The 2009 Protocol shall include, at a minimum, the following for each measure:

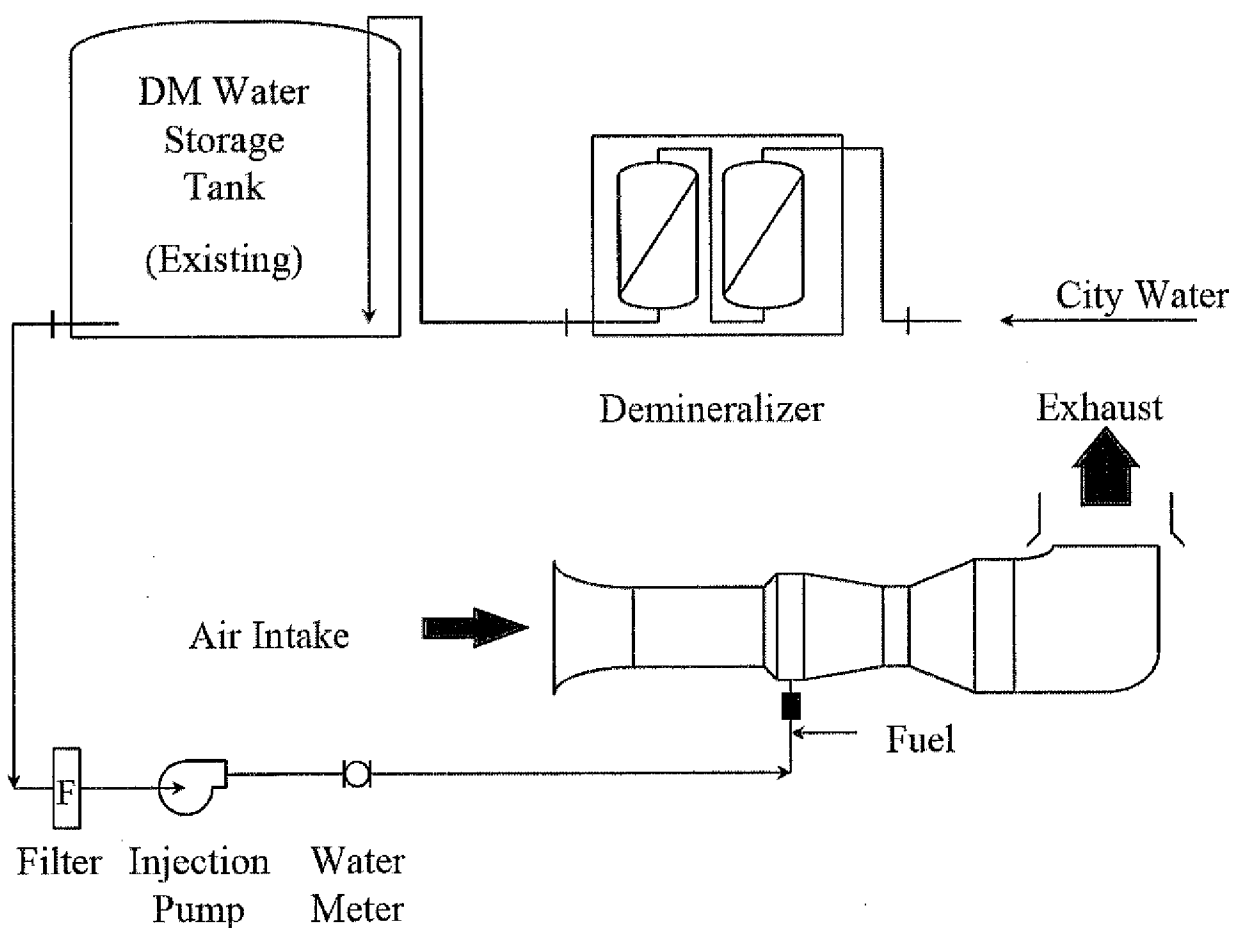
- A complete description of the measure;
- A quantification of the emission reductions from the measure and how the quantification was determined;
- The reasons why this measure is not necessary under any current State or Federal permit, regulation, enforcement agreement, or high electric demand day emission reduction program;
- The methods to be used to calculate and verify emission reductions;
- Monitoring requirements to ensure that the emission reductions determined by Equation 1 are achieved. This shall include, but not be limited to, the following, as applicable, for each electric generating unit:
 - Fuel flow/firing rate instrument to monitor fuel consumption;
 - Continuous Emissions Monitoring systems (CEMs) monitoring of NO_x emissions or monitoring of any parameter that can be used to calculate the NO_x emissions; and
 - Stack testing; and
- A list of records to be maintained pursuant to the requirements of N.J.A.C. 7:27-19.19. The records maintained should be sufficient to document that the emission reductions determined by Equation 1 are achieved. This shall include, but not be limited to the records, as applicable, listed in N.J.A.C. 7:27-19.29(e), for each HEDD.

2.5.1 *Installing Water Injection at Burlington and Essex*

As described above, PSEG Fossil has installed water injection on Burlington Units No. 9 and 11 as well as Essex Units No. 10, 11 and 12. The following section contains the information required by N.J.A.C. 7:27-19.29(d)3 for this NO_x reduction measure.

Requirement: A complete description of the measure.

PSEG Fossil: PSEG Fossil installed water injection systems to control NO_x emissions from the combustion turbines that comprise Burlington Units No. 9 and 11 as well as Essex Units No. 10, 11 and 12. Water injection is a technology that has been demonstrated to effectively suppress NO_x emissions from combustion turbines. The effect of water injection is to increase the thermal mass by dilution and thereby reduce peak temperatures in the flame zone. With water injection, there is an additional benefit of absorbing the latent heat of vaporization from the flame zone. The water injection systems will utilize the existing demineralized (DM) water production equipment and storage tanks at each station. A process flow diagram of the representative water injection systems is reflected below.



Requirement: A quantification of the emission reductions from the measure and how the quantification was determined.

PSEG Fossil: The following table contains a listing of the NO_x emission reductions from water injection on Burlington Units No. 9 and 11 as well as Essex Units No. 10, 11 and 12.

Facility	Unit No.	No. of Turbines	Fuel(s)	NO _x Emissions, lb/MMBtu ^{1,2}			
				Pre-Water Injection (6/13/05-8/7/06)	Pre-Water Injection (6/19/07-8/1/07)	Pre-Water Injection (8/2/07-8/25/07)	Post-Water Injection
Burlington	9	8	No. 2 Fuel Oil	1.2	1.2	0.693	0.41
	11	8	No. 2 Fuel Oil	1.2	1.2	1.2	0.41
Essex	10	8	Natural Gas	0.415	0.415	0.415	0.27
			No. 2 Fuel Oil	1.2	1.2	1.2	0.41
	11	8	Natural Gas	0.445	0.430	0.430	0.27
			No. 2 Fuel Oil	1.2	1.2	1.2	0.41
	12	8	Natural Gas	0.445	0.430	0.430	0.27
			No. 2 Fuel Oil	1.2	1.2	1.2	0.41

Footnotes:

¹ Pre-Water Injection NO_x Emissions correspond to PSEG Fossil's reported NO_x emission rates during each of the HEDD time periods listed above in its EDRs which have been submitted to and approved by USEPA. These rates have been adjusted based on stack testing data.

² Post-Water Injection NO_x Emissions correspond to the permitted emission limits in the Title V Permits for Burlington (Permit No. 45979-BOP090001) and Essex (Permit No. 07627-BOP080002) when operating on water injection.

Requirement: The reasons why this measure is not necessary under any current State or Federal permit, regulation, enforcement agreement, or high electric demand day emission reduction program.

PSEG Fossil: The Title V Permits for Burlington (Permit No. 45979-BOP090001) and Essex (Permit No. 07627-BOP080002) contain applicable regulations and federally enforceable limits on NO_x emissions from Burlington Units No. 9 and 11 and Essex Units No. 10, 11 and 12. These units are not currently under any enforcement agreement nor do they participate in any other high electric demand day emission reduction program. Also, these units comply with their current permitted NO_x emission limits without the use of water injection.

Requirement: The methods to be used to calculate and verify emission reductions.

PSEG Fossil: PSEG Fossil calculated actual uncontrolled NO_x emissions from Burlington Units No. 9 and 11 as well Essex Units No. 10, 11 and 12 on the 39 HEDDs between 2005 and 2007 based on actual operation of these units in mmBtu per day (mmBtu/day) as reflected in the facility's EDR multiplied by the units' pre-water injection NO_x emission rate in lb/mmBtu as reported in the facility's EDR then converted to tons of NO_x using the following equation:

$$\text{mmBtu/day} \times \text{EDR NO}_x \text{ lb/mmBtu} \times \text{ton/2,000 lb} = \text{uncontrolled tons of NO}_x$$

The emission reductions were then computed by calculating the actual controlled NO_x emissions from Burlington Units No. 9 and 11 as well Essex Units No. 10, 11 and 12 on HEDDs based on actual operation of these units in mmBtu/day as reflected in the facility's EDR multiplied by the units' post-water injection NO_x emission limits in each facility's Title V Permit then converted to tons of NO_x using the following equation:

$$\text{mmBtu/day} \times \text{WI Permit Limit NO}_x \text{ lb/mmBtu} \times \text{ton/2,000 lb} = \text{tons of NO}_x \text{ with water injection}$$

The actual tons of NO_x reduced were then calculated by subtracting the tons of NO_x with water injection from the uncontrolled tons of NO_x using the following equation:

$$\text{uncontrolled tons of NO}_x - \text{tons of NO}_x \text{ with water injection} = \text{tons of NO}_x \text{ reduced}$$

PSEG Fossil will verify the emission reductions achieved from the use of water injection through various stack emissions compliance testing requirements as specified in the Title V Permits.

Requirement: Monitoring requirements to ensure that the emission reductions determined by Equation 1 are achieved. This shall include, but not be limited to, the following, as applicable, for each electric generating unit:

- 1) Fuel flow/firing rate instrument to monitor fuel consumption
- 2) CEMs monitoring of NO_x emissions or monitoring of any parameter that can be used to calculate the NO_x emissions
- 3) Stack testing

PSEG Fossil: 1) and 2) above

Pursuant to the following permit conditions, PSEG Fossil continuously monitors the electrical output of Burlington Units No. 9 and 11 as well as Essex Units No. 10, 11 and 12 when the units employ water injection.

- Burlington Title V Permit No. 45979-BOP090001
 - U5, OS9-16, Ref.#21
 - U7, OS9-16, Ref.#21
- Essex Title V Permit No. 07627-BOP080002
 - U2, OS17-24, Ref.#15
 - U2, OS25-32, Ref.#14
 - U3, OS17-24, Ref.#15
 - U3, OS25-32, Ref.#14
 - U4, OS17-24, Ref.#15
 - U4, OS25-32, Ref.#14

PSEG Fossil computes the hourly actual heat input of these units in accordance with the low mass emission (LME) long term fuel flow methodologies contained in 40 CFR 75.19. The purpose of calculating the heat inputs in this manner is to align the operating parameters and emissions with PSEG Fossil's EDR data.

2) and 3) above

Pursuant to the following permit conditions, PSEG Fossil will conduct an optimization study during year 2009 with water injection to achieve compliance with the NO_x emission limits.

- Burlington Title V Permit No. 45979-BOP090001
 - U5, OS9-16, Ref.#16
 - U7, OS9-16, Ref.#16

- Essex Title V Permit No. 07627-BOP080002
 - U2, OS17-24, Ref.#10
 - U2, OS25-32, Ref.#9
 - U3, OS17-24, Ref.#10
 - U3, OS25-32, Ref.#9
 - U4, OS17-24, Ref.#10
 - U4, OS25-32, Ref.#9

The results of this optimization study will be submitted to the NJDEP's Bureau of Operating Permits.

Also, pursuant to the following stack testing requirements, PSEG Fossil conducts annual full engine stack testing for NO_x (as well as other specified pollutants) on a minimum of two (2) engines from Burlington Units No. 9 and 11 as well as 2 engines from Essex Units No. 10, 11 and 12.

- Burlington Title V Permit No. 45979-BOP090001
 - U5, OS9-16, Ref.#15
 - U5, OS Summary, Ref.#1
 - U7, OS9-16, Ref.#15
 - U7, OS Summary, Ref.#1
 - GR1, Ref.#5

- Essex Title V Permit No. 07627-BOP080002
 - U2, OS17-24, Ref.#9
 - U2, OS25-32, Ref.#8
 - U2, PT2

- U3, OS17-24, Ref.#9
- U3, OS25-32, Ref.#8
- U3, PT10
- U4, OS17-24, Ref.#9
- U4, OS25-32, Ref.#8
- U4, PT18
- GR3, Ref.#5

The testing is conducted in accordance with a protocol approved by the Chief of NJDEP's Bureau of Technical Services (BTS). Testing is performed on fuel oil for Burlington Units No. 9 and 11 as well as both natural gas and fuel oil for Essex Units No. 10, 11 and 12 with and without water injection for each of the 2 engines tested every year. Each year two different engines than the ones tested in previous year(s) are tested at each station, until all the engines have been tested. This test cycle is repeated annually.

Requirement: A list of records to be maintained pursuant to the requirements of N.J.A.C 7:27-19.19. The records maintained should be sufficient to document that the emission reductions determined by Equation 1 are achieved. This shall include, but not be limited to the records, as applicable, listed in N.J.A.C. 7:27-19.29(e).

PSEG Fossil: PSEG Fossil will calculate and record NO_x emissions reductions from this measure using the methodology listed above for all future HEDDs. PSEG Fossil will maintain these records as well as any other records maintained in accordance with N.J.A.C. 7:27-19.29(e) for a period of five years.

2.5.2 Placing Hi-Caps on Maximum Emergency Generation Status

Requirement: A complete description of the measure.

PSEG Fossil: As described above, PSEG Fossil will place 32 FT4 turbines in the "Hi-Cap" configuration (Kearny Units No. 10 and 11, Mercer Unit No. 3 and Sewaren Unit No. 6), which represent approximately 500

MW of electric power generation on MEG alert status on HEDDs. Placing units on MEG alert status means that the units will not operate unless a "maximum generation emergency" is called by PJM. A "maximum generation emergency" is defined in PJM Manual 35: Definitions and Acronyms, Revision: 14, Effective Date: October 21, 2008 at <http://www.pjm.com/documents/manuals/~media/documents/manuals/m35.ashx> as:

"An emergency declared by PJM in which PJM anticipates requesting one or more Capacity Resources to operate at its maximum net or gross electrical power output, subject to the equipment stress limits for such Capacity Resource, in order to manage, alleviate, or end the emergency."

N.J.A.C. 7:27-19.1 defines a MEG alert as:

"A period in which one or more electric generating units are operated at emergency capacity at the direction of the load dispatcher, in order to prevent or mitigate voltage reductions or interruptions in electric service, or both. A MEG alert begins and ends as follows:

- 1) An alert begins when one or more electric generating units are operated at emergency capacity after receiving notice from the load dispatcher, directing the electric generating unit to do so; and
- 2) An alert ends when the electric generating unit ceases operating its electric generating units at emergency capacity as directed by the load dispatcher.

Requirement: A quantification of the emission reductions from the measure and how the quantification was determined.

PSEG Fossil: The following table lists the NO_x emission reductions as a result of placing the Hi-Caps on MEG alert status on those HEDDs that were not maximum generation emergencies.

Facility	Unit No.	No. of Turbines	Fuel(s)	NO _x Emissions, lb/MMBtu ¹	
				Operating	Not Operating
Kearny	10	8	No. 2 Fuel Oil	0.7	0
	11	8	No. 2 Fuel Oil	0.7	0
Mercer	3	8	No. 2 Fuel Oil	1.2	0
Sewaren	6	8	No. 2 Fuel Oil	1.2	0

Footnote:

¹ NO_x Emissions correspond to PSEG Fossil's reported NO_x emission rates during each of the HEDD time periods listed above in its EDRs which have been submitted to and approved by USEPA.

Requirement: The reasons why this measure is not necessary under any current State or Federal permit, regulation, enforcement agreement, or high electric demand day emission reduction program.

PSEG Fossil: The Title V Permits for Kearny (Permit No. 12200-BOP090003), Mercer (Permit No. 61057-BOP070004) and Sewaren (Permit No. 18068-BOP080001) do not contain any requirements to place the above-listed units on MEG alert status on an HEDD. These units are not currently under any enforcement agreement nor do they participate in any other high electric demand day emission reduction program.

Requirement: The methods to be used to calculate and verify emission reductions.

PSEG Fossil: PSEG Fossil calculated actual NO_x emissions from Kearny Units No. 10 and 11, Mercer Unit No. 3 and Sewaren Unit No. 6 on the 39 HEDDs between 2005 and 2007 based on actual operation of these units in mmBtu/day as reflected in the facility's EDR and multiplied by the units' NO_x emission rate in lb/mmBtu as reported

in the facility's EDR then converted to tons of NO_x using the following equation:

$$\text{mmBtu/day} \times \text{EDR NO}_x \text{ lb/mmBtu} \times \text{ton}/2,000 \text{ lb} = \text{uncontrolled tons of NO}_x$$

Since 36 of the 39 HEDDs occurring from 2005 through 2007 were not considered maximum generation emergencies, emission reductions would have occurred on 36 out of 39 HEDDs by not running Kearny Units No. 10 and 11, Mercer Unit No. 3 and Sewaren Unit No. 6 if these units ran. Thus, the emission reductions were computed by subtracting the tons of NO_x that were produced on the HEDDs, which are equivalent to the tons of NO_x listed in the above equation. It should be noted that on the three HEDDs that were considered maximum generation emergencies (July 25, 2005, July 26, 2005 and August 8, 2007), PSEG Fossil would have achieved the required NO_x reductions without taking credit for not running the Hi-Caps by following the measures in this protocol.

Actual reductions in emissions from this measure on future HEDDs cannot be calculated by PSEG Fossil since PSEG Fossil cannot determine if these units would have run on a future HEDD. This is due to the fact that during a future HEDD, the units will be bid into PJM to operate only in the case of a MEG alert being called by PJM. By placing the units in this bid category, they cannot run unless a MEG alert is called by PJM. Thus, the bidding precludes the units from being called by PJM to run and it cannot be assessed if the unit would have run.

Requirement: Monitoring requirements to ensure that the emission reductions determined by Equation 1 are achieved. This shall include, but not be limited to, the following, as applicable, for each electric generating unit:

- 1) Fuel flow/firing rate instrument to monitor fuel consumption

- 2) CEMs monitoring of NO_x emissions or monitoring of any parameter that can be used to calculate the NO_x emissions
- 3) Stack testing

PSEG Fossil: This requirement would not apply to this measure since actual reductions in emissions from this measure on future HEDDs cannot be calculated by PSEG Fossil for the reasons stated above.

Requirement: A list of records to be maintained pursuant to the requirements of N.J.A.C 7:27-19.19. The records maintained should be sufficient to document that the emission reductions determined by Equation 1 are achieved. This shall include, but not be limited to the records, as applicable, listed in N.J.A.C. 7:27-19.29(e).

PSEG Fossil: PSEG Fossil will maintain records that on each HEDD, the Hi-Caps were placed in MEG alert status. PSEG Fossil will also maintain records consisting of a list of days on which a MEG alert was called by PJM and a list of any MEG units that were operated on those days. PSEG Fossil will maintain these records as well as any other records maintained in accordance with N.J.A.C. 7:27-19.29(e) for a period of five years.

2.5.3 Load Shifting

Requirement: A complete description of the measure.

PSEG Fossil: As described above, in the retrospective analysis of 39 HEDDs occurring between 2005 and 2007, PSEG Fossil shifted load on HEDDs from the remaining higher NO_x-emitting sources in PSEG Fossil's generating fleet (Bergen Unit No. 3, Burlington Unit No. 8, Edison Units No. 1, 2, and 3, Hudson Unit No. 1, Kearny Unit No. 9, National Park Unit No. 1, Salem Unit No. 3, Sewaren Units No. 1, 2, 3 and 4) to cleaner PSEG Fossil emission sources (Bergen Units No. 1 and 2, Essex Unit No. 9 and Linden Units No. 1 and 2). It should be noted that the actual operation of the sources listed in this measure is directed by PJM through a cost-based bidding

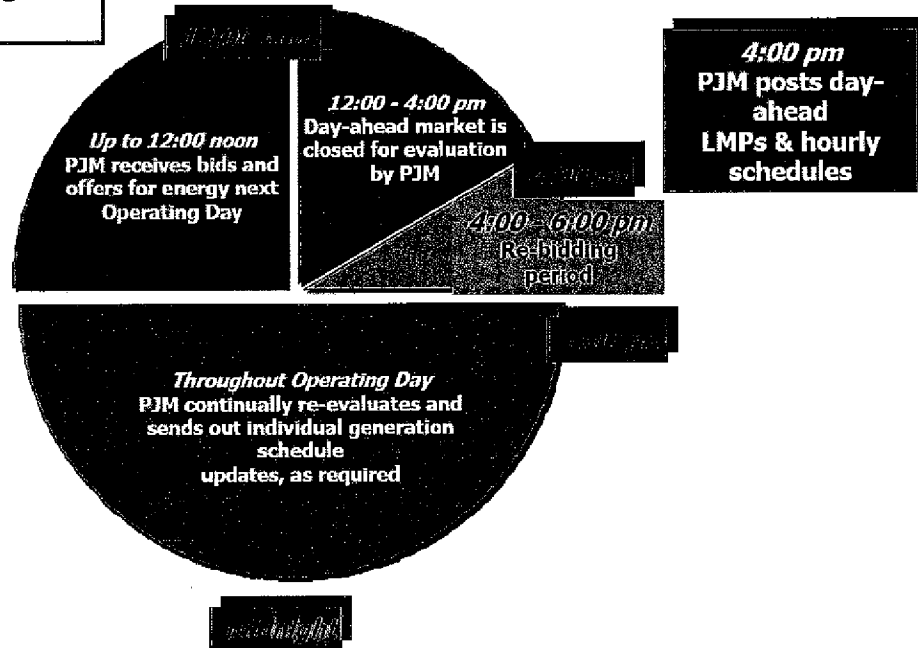
process which is largely based on the cost of generation, geographic location of the grid's electric needs and the availability of capacity to generate electricity. However, PSEG Power will encourage PJM to call for operation of Bergen Units No. 1 and 2, Essex Unit No. 9 and Linden Units No. 1 and 2 as well as Linden Units No. 5, 6, 7 and 8, Burlington Unit No. 12 and Kearny Unit No. 12 by offering them at a more economic price per MW generally based on unit heat rates before calling for Bergen Unit No. 3, Burlington Unit No. 8, Edison Units No. 1, 2, and 3, Hudson Unit No. 1, Kearny Unit No. 9, National Park Unit No. 1, Salem Unit No. 3, Sewaren Units No. 1, 2, 3 and 4 under normal circumstances. Normal circumstances means PJM would pick up the cleaner/cheaper units in the case of no special circumstances (i.e., no voltage reductions, loss of grid stability, no geographically located load pockets, no brownouts, no blackouts, etc.). It should be noted that there are other factors that affect PJM's dispatching of PSEG Fossil's units (i.e., lengthy startup durations) which could result in dirtier units being dispatched prior to cleaner units, but are unlikely to significantly contribute to PSEG Fossil's NO_x emissions on HEDDs.

As described above, PSEG Fossil's units are bid into PJM prior to being called for operation by PJM in accordance with the following schedule:



Day-ahead Market Time Line

All times are
Eastern Prevailing Time



In general, PSEG Fossil's units are bid into PJM for subsequent operation the following day. The bid pricing for PSEG Fossil's units is primarily a function of its generation units' heat rates in Btu per kilowatt-hour (Btu/kW-hr). Basically, the higher the unit heat rate, the more expensive the unit is to operate and would be less likely for PJM to call than a lower cost unit. Appendix B of this protocol contains a supply/dispatch curve for PSEG Fossil's generating fleet that is projected for July 2009.

PSEG Fossil's remaining HEDD units that are not mentioned in the above-listed two NO_x reduction measures are listed as follows with their associated heat rates:

Facility	Unit No.	Estimated Unit Heat Rate, Btu/kW-hr ¹
Bergen	1-2	8,000
	3	15,650
Burlington	8	15,650
	12	9,400
Edison	1-3	15,650
Essex	9	10,000
Hudson	1	10,000
Kearny	9	15,650
	12	9,400
Linden	1-2	10,000
	5-8	10,000
National Park	1	15,650
Salem	3	15,650
Sewaren	1-4	12,000

Footnote:

¹ Estimated unit heat rates are considered representative for the above-listed units.

In its 2005 – 2007 retrospective analysis, PSEG Fossil reconstructed load shifting from units with heat rates greater than or equal to 10,000 Btu/kW-hr to a subset of units with heat rates less than 10,000 Btu/kW-hr. Although Hudson Unit No. 1 has a heat rate of approximately 10,000 Btu/kW-hr, this unit experiences significant operating costs during the startup since it takes about 16 hours to become fully operational. Thus, this unit may not be dispatched solely based on its heat rate. PSEG Fossil took this into account in the load shifting analysis and allowed for load to be shifted from this unit to one of the other clean units.

PSEG Fossil's load shifting analysis did not take into account shifting load to Linden Units No. 5, 6, 7 and 8, Burlington Unit No. 12 and Kearny Unit No. 12. Based on changes in the draft regulations as well as a recently issued draft Significant Modification to the Title V Operating Permits for Burlington and Kearny, these units will be available in the future for load shifting based on their dispatch positions.

The specific units that load was shifted away from and units that load was shifted to are mentioned in the following section.

Requirement: A quantification of the emission reductions from the measure and how the quantification was determined.

PSEG Fossil: The following table contains a listing of the NO_x emission reductions from shifting load from the remaining higher NO_x-emitting sources in PSEG Fossil's generating fleet to cleaner PSEG Fossil emission sources on HEDDs.

Load Shifted From...

Facility	Unit No.	NO _x Emissions, lb/MW-hr	
		Operating ¹	Not Operating
Bergen	3	15.78	0
Burlington	8	17.66	0
Edison	1	4.12	0
	2	4.10	0
	3	4.27	0
Hudson	1	4.55	0
Kearny	9	12.55	0
National Park	1	19.32	0
Salem	3	9.78	0
Sewaren	1	0.91	0
	2	1.32	0
	3	1.93	0
	4	2.02	0

Load Shifted To...

Facility	Unit No.	NO _x Emissions, lb/MW-hr	
		Operating ¹	Not Operating
Bergen	1	0.361	0
	2	0.064	0
Essex	9	0.722	0
Linden	1	0.392	0
	2	0.085	0

Footnote:

¹ NO_x emissions reflected above are representative based on the calculated average lb/MW-hr emissions occurring on each of the 39 HEDDs between 2005 and 2007 by the Department as defined in the proposed rule and vary based on MW produced per the analyses contained in Appendix A. These emissions are presented in this table for informational purposes and should not be used for reporting purposes.

Requirement: The reasons why this measure is not necessary under any current State or Federal permit, regulation, enforcement agreement, or high electric demand day emission reduction program.

PSEG Fossil: This measure is not necessary under any current State or Federal permit, regulation, enforcement agreement, or high electric demand day emission reduction program.

Requirement: The methods to be used to calculate and verify emission reductions.

PSEG Fossil: As explained above, PSEG Fossil calculated actual NO_x emissions in its 2005 – 2007 retrospective analysis by shifting load on HEDDs from Bergen Unit No. 3, Burlington Unit No. 8, Edison Units No. 1, 2, and 3, Hudson Unit No. 1, Kearny Unit No. 9, National Park Unit No. 1, Salem Unit No. 3, Sewaren Units No. 1, 2, 3 and 4, if the units were operating, to Bergen Units No. 1 and 2, Essex Unit No. 9 and Linden Units No. 1 and 2, if these units were not operating at their maximum capacity or not operating at all. PSEG Fossil essentially took each hour during an HEDD and primarily shifted load to the above-listed units that were not operating at their maximum capacity. Once those units received load up to their maximum capacities, PSEG Fossil shifted the remaining load to the above-listed units that were not operating at all. Thus, the emission reductions were computed by subtracting the tons of NO_x that were produced on the HEDDs by Bergen Unit No. 3, Burlington Unit No. 8, Edison Units No. 1, 2, and 3, Hudson Unit No. 1, Kearny Unit No. 9, National Park Unit No. 1, Salem Unit No. 3, Sewaren Units No. 1, 2, 3 and 4, if the units were operating and adding the tons of NO_x that were produced on the HEDDs by Bergen Units No. 1 and 2, Essex Unit No. 9 and Linden Units No. 1 and 2, if these units received load from the above-listed units.

As mentioned above, actual operation of the sources listed in this measure is directed by PJM through a bidding process, however, PSEG Power encourages PJM to call for operation of Bergen Units No. 1 and 2, Essex Unit No. 9 and Linden Units No. 1 and 2 as well as Burlington Unit No. 12 and Kearny Unit No. 12 by offering them at a more economic price per MW based on unit heat rates before

calling for Bergen Unit No. 3, Burlington Unit No. 8, Edison Units No. 1, 2, and 3, Hudson Unit No. 1, Kearny Unit No. 9, National Park Unit No. 1, Salem Unit No. 3, Sewaren Units No. 1, 2, 3 and 4 under normal circumstances. Normal circumstances means PJM would pick up the cleaner/cheaper units in the case of no special circumstances (i.e., no voltage reductions, loss of grid stability, no geographically located load pockets, no brownouts, no blackouts, etc.). It should be noted that there are other factors that affect PJM's dispatching of PSEG Fossil's units (i.e., lengthy startup durations) which could result in dirtier units being dispatched prior to cleaner units, but are unlikely to significantly contribute to PSEG Fossil's NO_x emissions on HEDDs. Thus, PSEG Fossil cannot project emission reductions associated with this measure for future operations since there is no way of knowing what units would operate in the absence of the 2009 Protocol.

Requirement: Monitoring requirements to ensure that the emission reductions determined by Equation 1 are achieved. This shall include, but not be limited to, the following, as applicable, for each electric generating unit:

- 1) Fuel flow/firing rate instrument to monitor fuel consumption
- 2) CEMs monitoring of NO_x emissions or monitoring of any parameter that can be used to calculate the NO_x emissions
- 3) Stack testing

PSEG Fossil: This requirement would not apply to this measure since actual reductions in emissions from this measure on future HEDDs cannot be calculated by PSEG Fossil for the reasons stated above.

Requirement: A list of records to be maintained pursuant to the requirements of N.J.A.C 7:27-19.19. The records maintained should be sufficient to document that the emission reductions determined by Equation 1 are achieved. This shall include, but not be limited to the records, as applicable, listed in N.J.A.C. 7:27-19.29(e).

PSEG Fossil: This requirement would not apply to this measure since actual reductions in emissions from this measure on future HEDDs cannot be calculated by PSEG Fossil for the reasons stated above. Thus, there would not be any records for this measure on future HEDDs. However, for informational purposes, records will kept to document the reason for Bergen Unit No. 3, Burlington Unit No. 8, Edison Units No. 1, 2, and 3, Hudson Unit No. 1, Kearny Unit No. 9, National Park Unit No. 1, Salem Unit No. 3, Sewaren Units No. 1, 2, 3 and 4 units operating on HEDDs as well as their emissions and time of operation.

2.6 N.J.A.C. 7:27-19.29(k)

N.J.A.C. 7:27-19.29(k) requires that PSEG Fossil submit an annual report, for calendar years 2009 through 2014, to the Department, by January 30th of the following year. In accordance with N.J.A.C. 7:27-29(b)4ii, the annual report will include a demonstration that PSEG Fossil implemented the 2009 Protocol, or a modified protocol approved by the Department, on each HEDD during the calendar year of the applicable annual report. This demonstration will include the following:

- Written documentation that water injection was used if Burlington Units No. 9 and 11 as well as Essex Units No. 10, 11 and 12 operate on an HEDD, as well as calculations of emission reductions.
- Documentation that Kearny Units No. 10 and 11, Mercer Unit No. 3, and Sewaren Unit No. 6 were placed in MEG alert status.
- Documentation if any PSEG Fossil units were place on MEG alert status, whether Kearny Units No. 10 and 11, Mercer Unit No. 3 and Sewaren Unit No. 6 operated as well as their time of operation.
- Documentation on reasons why Bergen Unit No. 3, Burlington Unit No. 8, Edison Units No. 1, 2, and 3, Hudson Unit No. 1, Kearny Unit No. 9, National Park Unit No. 1, Salem Unit No. 3, Sewaren Units No. 1, 2, 3 and 4 operated during an HEDD and their time of operation.

APPENDIX A

Summary of Retrospective HEDD Emission Reductions on Representative Days (2005-2007)

Summary of 2009 Protocol Calculations for 2005-2007 HEDDs
Emission Reduction (ER) Calculations Pursuant to N.J.A.C. 7:27-19.29(c)

High Electric Demand Day: 6/28/2005

NO MEG ALERT CALLED

$$ER = \left(\frac{BE}{EF} \right) * RF$$

ER Calculation: 3.92 tons

where

BE = sum of NOX emissions for all HEDD units on this day

12.67

NOX Reduced: 6.61 tons

RF = Sum of Unit Reduction Factors on July 26, 2005

18.34

EF = Sum of NOX emissions for all HEDD units on July 26, 2005

59.28

NOX Reduction Measure #1: New Water Injection Installations

Station	Emission Unit ID	Module ID	MWh (net)	Heat Input (mmbtu)	Historical NOX Emissions (tons)	Historical NOX Rate (lb/mmbtu)	HPWI NOX Rate (lb/mmbtu)	HPWI NOX Emissions (tons)	NOX Savings (tons)
Burlington	U5	91	-	-	-	-	0.410	-	-
		92	2	29	0.02	1.201	0.410	0.01	0.01
		93	1	15	0.01	1.197	0.410	0.00	0.01
		94	-	-	-	-	0.410	-	-
Burlington	U7	111	1	15	0.01	1.197	0.410	0.00	0.01
		112	1	15	0.01	1.197	0.410	0.00	0.01
		113	1	15	0.01	1.197	0.410	0.00	0.01
		114	1	15	0.01	1.197	0.410	0.00	0.01
Essex	U2	111	-	-	-	-	0.270	-	-
		112	-	-	-	-	0.270	-	-
		113	-	-	-	-	0.270	-	-
		114	-	-	-	-	0.270	-	-
Essex	U3	111	254	3,975	0.88	0.445	0.270	0.54	0.35
		112	271	4,241	0.94	0.445	0.270	0.57	0.37
		113	271	4,241	0.94	0.445	0.270	0.57	0.37
		114	271	4,241	0.94	0.445	0.270	0.57	0.37
Essex	U4	111	211	3,302	0.73	0.445	0.270	0.45	0.29
		112	4	63	0.01	0.448	0.270	0.01	0.01
		113	198	3,099	0.69	0.445	0.270	0.42	0.27
		114	133	2,081	0.46	0.445	0.270	0.28	0.18
TOTALS:			1,620	25,345	5.68			3.43	2.25

NOX Reduction Measure #2: Hi-Cap Units placed on Maximum Emergency Generation Status

Station	Emission Unit ID	Module ID	MWh (net)	Heat Input (mmbtu)	Historical NOX Emissions (tons)	Historical NOX Rate (lb/mmbtu)	MEG NOX Rate (lb/mmbtu)	MEG NOX Emissions (tons)	NOX Savings (tons)
Kearny	U5	10	-	-	-	-	0.000	-	-
	U6	11	-	-	-	-	0.000	-	-
Mercer	U5	3	-	-	-	-	0.000	-	-
Sewaren	U7	6	-	-	-	-	0.000	-	-
TOTALS:			-	-	-			-	-

NOX Reduction Measure #3: Load Shifting to Cleaner Units

MW Available to Shift (MW)	Available Room (MW)	Shifted MW	"Full Shift" NOX Savings (tons)	"Partial Shift" NOX Savings (tons)	Total NOX Savings (tons)
4,123	9,384	3,238	2.38	1.98	4.36
TOTALS:					4.36

Notes:

- Historical Emissions Data is from quarterly Electronic Data Report submittals to EPA.
- For purposes of compliance with the required ER, on days when MEG status is active Measure #2 is considered to have not been taken.
- Load Shifting is described in an attachment to this sheet.

HEDD:
6/28/2005

[illegible]

2,381 = Tons Reduced from Full Load Shifting
1,980 = Tons Reduced from Partial Load Shifting
4,361 = Total Tons Reduced from Load Shifting

**Summary of 2009 Protocol Calculations for 2005-2007 HEDDs
Emission Reduction (ER) Calculations Pursuant to N.J.A.C. 7:27-19.29(c)**

High Electric Demand Day: 7/26/2005

MEG ALERT CALLED

$$ER = \left(\frac{BE}{EF} \right) * RF$$

ER Calculation: 18.34 tons

where

BE = sum of NOX emissions for all HEDD units on this day

59.28

NOX Reduced: 30.14 tons

RF = Sum of Unit Reduction Factors on July 26, 2005

18.34

EF = Sum of NOX emissions for all HEDD units on July 26, 2005

59.28

NOX Reduction Measure #1: New Water Injection Installations

Station	Emission Unit ID	Module ID	MWh (net)	Heat Input (mmbtu)	Historical NOX Emissions (tons)	Historical NOX Rate (lb/mmbtu)	HPWI NOX Rate (lb/mmbtu)	HPWI NOX Emissions (tons)	NOX Savings (tons)
Burlington	U5	91	385	5,453	3.27	1.200	0.410	1.12	2.15
		92	180	2,390	1.43	1.200	0.410	0.49	0.94
		93	170	2,540	1.52	1.200	0.410	0.52	1.00
		94	201	3,003	1.80	1.200	0.410	0.62	1.19
Burlington	U7	111	104	1,554	0.93	1.200	0.410	0.32	0.61
		112	170	2,540	1.52	1.200	0.410	0.52	1.00
		113	135	2,017	1.21	1.200	0.410	0.41	0.80
		114	127	1,897	1.14	1.200	0.410	0.39	0.75
Essex	U2	111	314	4,803	1.00	0.415	0.270	0.65	0.35
		112	308	4,711	0.98	0.415	0.270	0.64	0.34
		113	314	4,803	1.00	0.415	0.270	0.65	0.35
		114	158	2,417	0.50	0.415	0.270	0.33	0.18
Essex	U3	111	400	6,119	1.36	0.445	0.270	0.83	0.54
		112	404	6,180	1.38	0.445	0.270	0.83	0.54
		113	378	5,782	1.29	0.445	0.270	0.78	0.51
		114	414	6,333	1.41	0.445	0.270	0.85	0.55
Essex	U4	111	504	7,710	1.72	0.445	0.270	1.04	0.67
		112	517	7,909	1.76	0.445	0.270	1.07	0.69
		113	498	7,618	1.70	0.445	0.270	1.03	0.67
		114	489	7,480	1.66	0.445	0.270	1.01	0.65
TOTALS:			6,130	93,260	28.58			14.09	14.49

NOX Reduction Measure #2: Hi-Cap Units placed on Maximum Emergency Generation Status

Station	Emission Unit ID	Module ID	MWh (net)	Heat Input (mmbtu)	Historical NOX Emissions (tons)	Historical NOX Rate (lb/mmbtu)	MEG NOX Rate (lb/mmbtu)	MEG NOX Emissions (tons)	NOX Savings (tons)
Kearny	U5	10	288	4,613	1.61	0.700	0.700	1.61	-
	U6	11	760	13,083	4.58	0.700	0.700	4.58	-
Mercer	U5	3	-	-	-	-	0.000	-	-
Sewaren	U7	6	-	-	-	-	0.000	-	-
TOTALS:			1,028	17,696	6.19			6.19	-

NOX Reduction Measure #3: Load Shifting to Cleaner Units

MW Available to Shift (MW)	Available Room (MW)	Shifted MW	"Full Shift" NOX Savings (tons)	"Partial Shift" NOX Savings (tons)	Total NOX Savings (tons)
13,733	13,107	9,935	4.23	11.42	15.65
TOTALS:					15.65

Notes:

- Historical Emissions Data is from quarterly Electronic Data Report submittals to EPA.
- For purposes of compliance with the required ER, on days when MEG status is active Measure #2 is considered to have not been taken.
- Load Shifting is described in an attachment to this sheet.

Units Giving MW	Row	Gap	lb/mw	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
Bargen 3	3		14,755	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Bullington 8	4			10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Edison 1	5		4,036	3	-	-	-	-	-	-	-	-	-	-	24	121	120	121	118	120	117	116	117	115	120	120	123	112	92
Edison 2	6		4,036	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	116	116	115	116	115	116	117	125	125	44	
Edison 3	7		4,036	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28	119	117	117	117	117	117	118	122	122	125
Hudson 1	8		2,425	6	155	208	199	150	141	139	138	137	164	263	275	282	295	302	357	307	306	357	305	223	242	299	200	140	
Kearny 3	9		12,445	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	11	15	7	9	-	14	16	10		
National Park	13			10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Salmon 3	14			10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Sawyer 1	15			10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Sawyer 2	16		2,109	9	21	20	21	20	19	20	19	20	21	84	82	93	83	92	91	91	91	91	92	79	93	90	61	24	
Sawyer 3	17		3,296	7	24	21	20	21	20	19	20	19	20	84	82	93	83	92	91	91	91	91	92	79	93	90	61	24	
Sawyer 4	18		3,575	8	24	21	20	21	20	19	20	19	20	84	82	93	83	92	91	91	91	91	92	79	93	90	61	24	
Sum of MW					11,735	213	230	230	150	160	160	151	214	252	253	269	269	304	357	307	306	357	305	223	242	299	200	140	

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Partial Shift	lb/mwh	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Free Space			0	0	0	0	0	0	0	0	0	0	0	0	293	188	702	818	805	804	812	706	548	349	515	410
MW	14.768	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	15	15	1	0	0	0
MW Shifted			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	15	15	1	0	0	0
NOx Saved	0.236		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.159	0.159	0.000	0.000	0.000	0.000

Partial Shift	lb/mwh	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Flue Space			0	0	0	0	0	0	0	0	0	0	0	0	250	130	702	616	605	600	957	894	828	345	315	210
MW	12.048	2	0	0	0	0	0	0	0	0	0	0	0	0	0	12	11	15	7	9	1	0	5	14	18	12
MW Shifted			0	0	0	0	0	0	0	0	0	0	0	0	0	12	11	15	7	9	1	0	5	14	18	12
NOx Save:	0.684		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.071	0.085	0.069	0.041	0.003	0.000	0.000	0.029	0.083	0.088	0.056

Partia Shift	Birthmth	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
Free Space			0	0	0	0	0	0	0	0	0	0	0	0	0	200	190	601	601	598	591	569	561	543	535	550	400
MW	4	036	3	0	0	0	0	0	0	0	0	0	24	12	12	121	119	120	117	118	119	126	120	123	112	62	
MW Shifted			0	0	0	0	0	0	0	0	0	0	0	0	0	121	116	120	120	117	118	119	126	120	123	112	62
NOx Stated	2	001		0.000	0.020	0.000	0.053	0.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.039	0.224	0.226	0.222	0.224	0.222	0.229	0.228	0.227	0.233	0.210	0.171

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Partial Shift	km/h	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
Free Flow			0	0	0	0	0	0	0	0	0	0	0	0	0	130	0	453	356	364	350	361	454	598	87	344	338
MM	4.036	5	0	0	0	0	0	0	0	0	0	0	0	0	0	26	116	117	117	117	117	117	118	122	120	122	125
MM Shifted			0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	117	117	117	117	117	118	122	87	122	125
NOX Seva	2.244		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.040	0.000	0.222	0.222	0.222	0.222	0.222	0.222	0.221	0.185	0.229	0.233

Partial Shift	lb/mwh	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Free Space			0	0	0	0	0	0	0	0	0	0	0	113	0	339	252	247	242	244	339	478	0	222	213	
MW	3.575	5	24	1	0	0	0	0	0	0	0	15	52	81	84	102	103	102	103	102	100	101	101	56	20	
MW Shifed			0	0	0	0	0	0	0	0	0	0	0	84	0	84	0	103	103	102	103	102	101	0	54	20
NOx Gases	1.468		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.140	0.000	0.172	0.172	0.170	0.172	0.170	0.197	0.168	0.000	0.000	0.000

Partial Shift	Jobno	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Free Space			0	0	0	0	0	0	0	0	0	0	0	0	29	0	233	148	145	139	142	238	375	0	188	193
MW	3.268	7	0	0	0	0	0	0	13	57	57	68	57	60	91	98	92	93	92	89	98	96	87	58	80	30
MW Certified			0	0	0	0	0	0	0	0	0	0	0	0	29	0	92	98	92	89	98	96	87	58	80	30
NOX Savers	1.138		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.044	0.093	0.140	0.142	0.141	0.136	0.138	0.135	0.131	0.090	0.087	0.048

Partial Shift	lb/min/h	Rank	0	1	2	3	4	6	5	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Free Space			0	0	0	0	0	0	0	0	0	0	0	0	0	0	141	56	53	53	148	289	0	108	163	
MW	2.429	8	180	209	199	190	141	130	139	137	184	263	275	282	263	302	397	317	362	357	395	229	289	200	140	
MW Shaded			0	0	0	0	0	0	0	0	0	0	0	0	0	0	141	56	53	53	148	289	0	108	160	
NOX Shaded	1.680		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.154	0.061	0.536	0.255	0.659	0.163	0.262	0.000	0.118	0.151

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4,231 = Tons Reduced from Full Load Shifting
11,422 = Tons Reduced from Partial Load Shifting
15,653 = Total Tons Reduced from Load Shifting

Summary of 2009 Protocol Calculations for 2005-2007 HEDDs
Emission Reduction (ER) Calculations Pursuant to N.J.A.C. 7:27-19.29(c)

High Electric Demand Day: 7/27/2005

NO MEG ALERT CALLED

$$ER = \left(\frac{BE}{EF} \right) * RF$$

ER Calculation: 18.36 tons

where

BE = sum of NOX emissions for all HEDD units on this day

59.32

NOX Reduced: 37.10 tons

RF = Sum of Unit Reduction Factors on July 26, 2005

18.34

EF = Sum of NOX emissions for all HEDD units on July 26, 2005

59.28

NOX Reduction Measure #1: New Water Injection Installations

Station	Emission Unit ID	Module ID	MWh (net)	Heat Input (mmbtu)	Historical NOX Emissions (tons)	Historical NOX Rate (lb/mmbtu)	HPWI NOX Rate (lb/mmbtu)	HPWI NOX Emissions (tons)	NOX Savings (tons)
Burlington	U5	91	291	4,347	2.81	1.200	0.410	0.89	1.72
		92	254	3,795	2.28	1.200	0.410	0.78	1.50
		93	234	3,496	2.10	1.200	0.410	0.72	1.38
		94	265	3,959	2.38	1.200	0.410	0.81	1.56
Burlington	U7	111	183	2,734	1.64	1.200	0.410	0.58	1.08
		112	218	3,257	1.95	1.200	0.410	0.67	1.29
		113	178	2,659	1.60	1.200	0.410	0.55	1.05
		114	168	2,510	1.51	1.200	0.410	0.51	0.99
Essex	U2	111	349	5,339	1.11	0.415	0.270	0.72	0.39
		112	347	5,308	1.10	0.415	0.270	0.72	0.38
		113	330	5,048	1.05	0.415	0.270	0.68	0.37
		114	176	2,893	0.56	0.415	0.270	0.36	0.20
Essex	U3	111	435	6,654	1.48	0.445	0.270	0.90	0.58
		112	399	6,104	1.36	0.445	0.270	0.82	0.53
		113	329	5,033	1.12	0.445	0.270	0.68	0.44
		114	462	7,067	1.57	0.445	0.270	0.95	0.62
Essex	U4	111	446	6,823	1.52	0.445	0.270	0.92	0.60
		112	478	7,312	1.63	0.445	0.270	0.99	0.64
		113	474	7,251	1.61	0.445	0.270	0.98	0.63
		114	390	5,966	1.33	0.445	0.270	0.81	0.52
TOTALS:			6,406	97,354	31.49			15.02	16.47

NOX Reduction Measure #2: Hi-Cap Units placed on Maximum Emergency Generation Status

Station	Emission Unit ID	Module ID	MWh (net)	Heat Input (mmbtu)	Historical NOX Emissions (tons)	Historical NOX Rate (lb/mmbtu)	MEG NOX Rate (lb/mmbtu)	MEG NOX Emissions (tons)	NOX Savings (tons)
Kearny	U5	10	-	-	-	-	0.000	-	-
	U6	11	453	7,798	2.73	0.700	0.000	-	2.73
Mercer	U5	3	78	1,651	0.99	1.200	0.000	-	0.99
Sewaren	U7	6	88	1,758	1.05	1.200	0.000	-	1.05
TOTALS:			619	11,206	4.77			-	4.77

NOX Reduction Measure #3: Load Shifting to Cleaner Units

MW Available to Shift (MW)	Available Room (MW)	Shifted MW	"Full Shift" NOX Savings (tons)	"Partial Shift" NOX Savings (tons)	Total NOX Savings (tons)
12,697	13,154	9,681	4.95	10.91	15.86
TOTALS:					15.86

Notes:

- Historical Emissions Data is from quarterly Electronic Data Report submittals to EPA.
- For purposes of compliance with the required ER, on days when MEG status is active Measure #2 is considered to have not been taken.
- Load Shifting is described in an attachment to this sheet.

Load Shifting to Clean Units

HEDD:
7/27/2005

Units Receiving MW	Row	Cap	lb/mwh	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Berkey 1	3	675	0.347	14,791	465	464	499	413	397	443	428	441	444	446	432	435	512	480	547	566	582	603	615	524	444	426	434	431
Berkey 2	26	650	0.040	260	362	361	245	254	265	263	290	293	285	268	269	457	506	506	509	528	534	538	483	247	251	258	250	
Berkey 3	28	81	0.688	70	68	-	-	-	-	-	-	-	-	-	73	72	70	65	68	50	35	-	55	74	55	-	-	
Union 1	34	800	0.100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	110	136	137	147	146	81	-	-	
Union 2	35	800	0.100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	110	136	137	147	146	81	-	
Roan	13	164	-	510	352	680	572	554	497	634	604	570	552	554	532	258	221	750	634	658	557	524	705	1,046	648	622	626	
lb/mwh avg				0.275	0.221	0.289	0.235	0.225	0.227	0.231	0.228	0.228	0.228	0.228	0.271	0.270	0.234	0.218	0.213	0.205	0.191	0.213	0.213	0.212	0.223	0.234	0.230	0.230

Full Shift	Row	Total	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Full Swap?		(tons)																								
Max Reduction		4.953	0.603	0.347	0.215	0.213	0.214	0.263	0.256	0.249	0.306	0.475	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.994	0.446	0.390	0.306

Partial Shift	15mwh	Ratio	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
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13,332	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17,927	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14,791	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12,048	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7,257	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4,036	6	123	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4,036	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4,036	8	83	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3,655	9	27	10	13	19	19	30	35	37	44	53	69	63	81	82	92	92	97	90	84	97	85	43	14	19	19	0
2,770	10	23	20	2	19	24	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	0
2,770	11	131	131	131	131	131	131	131	131	131	131	131	131	131	131	131	131	131	131	131	131	131	131	131	131	131	0
2,043	12	41	35	27	26	27	27	30	28	25	25	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	0
0.000	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Partial Shift	lb/mwh	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
Free Space	1	1	0	0	0	0	0	0	0	0	0	0	0	534	532	208	221	790	836	808	567	824	738	0	0	0	0
MW	18.635	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	17	17	16	2	0	0	0	0	
MW Shifted	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	17	17	18	2	0	0	0	0	
NOX Saved	6.808	1	0.059	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.129	0.157	0.157	0.147	0.016	0.000	0.000	0.000	0.000	

Partial Shift	lb/mwh	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Free Space			0	0	0	0	0	0	0	0	0	0	534	552	268	221	790	624	542	585	539	708	0	0	0	0
MW	17,927	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10	17	18	18	0	0	0	0	0
MW Shifed			0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10	17	18	18	5	0	0	0	0
NOX Saved	1,001		0.000	0.000	0.025	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Partial Shift	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Free Space	0	0	0	0	0	0	0	0	0	0	534	532	252	205	774	806	525	532	485	701	0	0	0	0
MW	14751	3	0	0	0	0	0	0	0	0	0	0	13	15	14	14	14	15	15	13	0	0	0	0
MW Shifed	0	0	0	0	0	0	0	0	0	0	0	0	0	10	14	14	14	15	15	13	0	0	0	0
NOX Saved	6831	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.106	0.102	0.102	0.102	0.109	0.117	0.095	0.000	0.000	0.000	0.000

Partial Shift	lb/mwh	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Free Space			0	0	0	0	0	0	0	0	0	0	534	532	249	190	760	894	511	517	473	888	0	0	0	0
MW	12,048	4	0	0	0	0	0	0	0	0	0	0	9	15	15	10	10	12	10	10	1	0	0	0	0	0
MW Shifted			0	0	0	0	0	0	0	0	0	0	9	15	15	10	10	12	10	10	1	0	0	0	0	0
NOX Saved	0.654		0.000	0.000	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.053	0.055	0.069	0.099	0.059	0.071	0.069	0.069	0.009	0.000	0.000	0.000	0.000

Partial Shift	lb/mwh	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
Free Space			0	0	0	0	0	0	0	0	0	0	0	525	517	234	180	750	882	501	507	472	888	0	0	0	0
MW	7.257	5	0	0	0	0	0	0	0	0	0	0	0	11	12	13	1	1	0	0	0	0	0	0	0	0	
MW Shifed			0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	12	13	1	0	0	0	0	0	0	
NOX Saved	4.427	1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Partial Shift	lb/mwh	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Free Space			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MW	AC35	6	123	52	0	0	0	0	0	0	0	0	585	517	234	180	239	578	498	555	472	595	0	0	0	0
MW Shifed			0	0	0	0	0	0	0	0	0	0	5	118	126	117	120	60	66	67	5	5	0	0	0	0
NOX Saved			0	0	0	0	0	0	0	0	0	0	5	118	120	117	120	66	66	67	53	0	0	0	0	0
NOX Shifed	1.642		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

**Summary of 2009 Protocol Calculations for 2005-2007 HEDDs
Emission Reduction (ER) Calculations Pursuant to N.J.A.C. 7:27-19.29(c)**

High Electric Demand Day: 8/2/2006

NO MEG ALERT CALLED

$$ER = \left(\frac{BE}{EF} \right) * RF$$

ER Calculation: 18.24 tons

where

BE = sum of NOX emissions for all HEDD units on this day

58.94

NOX Reduced: 32.80 tons

RF = Sum of Unit Reduction Factors on July 26, 2005

18.34

EF = Sum of NOX emissions for all HEDD units on July 26, 2005

59.28

NOX Reduction Measure #1: New Water Injection Installations

Station	Emission Unit ID	Module ID	MWh (net)	Heat Input (mmbtu)	Historical NOX Emissions (tons)	Historical NOX Rate (lb/mmbtu)	HPWI NOX Rate (lb/mmbtu)	HPWI NOX Emissions (tons)	NOX Savings (tons)
Burlington	U5	91	-	-	-	-	0.410	-	-
		92	354	5,126	3.08	1.200	0.410	1.05	2.02
		93	337	4,880	2.93	1.200	0.410	1.00	1.93
		94	394	5,705	3.42	1.200	0.410	1.17	2.25
Burlington	U7	111	-	-	-	-	0.410	-	-
		112	366	5,300	3.18	1.200	0.410	1.09	2.09
		113	-	-	-	-	0.410	-	-
		114	-	-	-	-	0.410	-	-
Essex	U2	111	416	6,018	1.25	0.415	0.270	0.81	0.44
		112	397	5,743	1.19	0.415	0.270	0.78	0.42
		113	418	6,047	1.25	0.415	0.270	0.82	0.44
		114	426	6,162	1.28	0.415	0.270	0.83	0.45
Essex	U3	111	340	4,918	1.09	0.445	0.270	0.66	0.43
		112	159	2,300	0.51	0.445	0.270	0.31	0.20
		113	418	6,047	1.35	0.445	0.270	0.82	0.53
		114	376	5,439	1.21	0.445	0.270	0.73	0.48
Essex	U4	111	363	5,251	1.17	0.445	0.270	0.71	0.46
		112	326	4,716	1.05	0.445	0.270	0.64	0.41
		113	219	3,188	0.70	0.445	0.270	0.43	0.28
		114	357	5,165	1.15	0.445	0.270	0.70	0.45
TOTALS:			5,666	81,982	25.81			12.54	13.28

NOX Reduction Measure #2: Hi-Cap Units placed on Maximum Emergency Generation Status

Station	Emission Unit ID	Module ID	MWh (net)	Heat Input (mmbtu)	Historical NOX Emissions (tons)	Historical NOX Rate (lb/mmbtu)	MEG NOX Rate (lb/mmbtu)	MEG NOX Emissions (tons)	NOX Savings (tons)
Kearny	U5	10	304	5,399	1.89	0.700	0.000	-	1.89
	U6	11	581	10,317	3.61	0.700	0.000	-	3.61
Mercer	U5	3	-	-	-	-	0.000	-	-
Sewaren	U7	6	4	82	0.05	1.200	0.000	-	0.05
TOTALS:			889	15,798	5.55			-	5.55

NOX Reduction Measure #3: Load Shifting to Cleaner Units

MW Available to Shift (MW)	Available Room (MW)	Shifted MW	"Full Shift" NOX Savings (tons)	"Partial Shift" NOX Savings (tons)	Total NOX Savings (tons)
16,085	13,695	8,016	3.24	10.74	13.98
TOTALS:					13.98

Notes:

- Historical Emissions Data is from quarterly Electronic Data Report submittals to EPA.
- For purposes of compliance with the required ER, on days when MEG status is active Measure #2 is considered to have not been taken.
- Load Shifting is described in an attachment to this sheet.

[illegible]

3.240 = Tons Reduced from Full Load Shifting
10.739 = Tons Reduced from Partial Load Shifting
13.979 = Total Tons Reduced from Load Shifting

**Summary of 2009 Protocol Calculations for 2005-2007 HEDDs
Emission Reduction (ER) Calculations Pursuant to N.J.A.C. 7:27-19.29(c)**

High Electric Demand Day: 7/11/2007

NO MEG ALERT CALLED

$$ER = \left(\frac{BE}{EF} \right) * RF$$

ER Calculation: 3.26 tons
NOX Reduced: 6.84 tons

where

BE = sum of NOX emissions for all HEDD units on this day 10.53
RF = Sum of Unit Reduction Factors on July 26, 2005 18.34
EF = Sum of NOX emissions for all HEDD units on July 26, 2005 59.28

NOX Reduction Measure #1: New Water Injection Installations

Station	Emission Unit ID	Module ID	MWh (net)	Heat Input (mmbtu)	Historical NOX Emissions (tons)	Historical NOX Rate (lb/mmbtu)	HPWI NOX Rate (lb/mmbtu)	HPWI NOX Emissions (tons)	NOX Savings (tons)
Burlington	U5	91	-	-	-	-	0.410	-	-
		92	-	-	-	-	0.410	-	-
		93	-	-	-	-	0.410	-	-
		94	-	-	-	-	0.410	-	-
Burlington	U7	111	-	-	-	-	0.410	-	-
		112	-	-	-	-	0.410	-	-
		113	-	-	-	-	0.410	-	-
		114	-	-	-	-	0.410	-	-
Essex	U2	111	109	1,894	0.35	0.415	0.270	0.23	0.12
		112	78	1,213	0.25	0.415	0.270	0.16	0.09
		113	139	2,161	0.45	0.415	0.270	0.29	0.16
		114	138	2,145	0.45	0.415	0.270	0.29	0.16
Essex	U3	111	-	-	-	-	0.270	-	-
		112	-	-	-	-	0.270	-	-
		113	-	-	-	-	0.270	-	-
		114	-	-	-	-	0.270	-	-
Essex	U4	111	150	2,332	0.50	0.430	0.270	0.31	0.19
		112	136	2,114	0.45	0.430	0.270	0.29	0.17
		113	165	2,565	0.55	0.430	0.270	0.35	0.21
		114	81	1,259	0.27	0.430	0.270	0.17	0.10
TOTALS:			996	15,483	3.27			2.09	1.18

NOX Reduction Measure #2: Hi-Cap Units placed on Maximum Emergency Generation Status

Station	Emission Unit ID	Module ID	MWh (net)	Heat Input (mmbtu)	Historical NOX Emissions (tons)	Historical NOX Rate (lb/mmbtu)	MEG NOX Rate (lb/mmbtu)	MEG NOX Emissions (tons)	NOX Savings (tons)
Keamy	U5	10	115	2,183	0.76	0.700	0.000	-	0.76
	U6	11	201	3,815	1.34	0.700	0.000	-	1.34
Mercer	U5	3	39	677	0.41	1.200	0.000	-	0.41
Sewaren	U7	6	-	-	-	-	0.000	-	-
TOTALS:			355	6,675	2.51			-	2.51

NOX Reduction Measure #3: Load Shifting to Cleaner Units

MW Available to Shift (MW)	Available Room (MW)	Shifted MW	"Full Shift" NOX Savings (tons)	"Partial Shift" NOX Savings (tons)	Total NOX Savings (tons)
3,387	21,607	3,387	3.15	-	3.15
TOTALS:					3.15

Notes:

- Historical Emissions Data is from quarterly Electronic Data Report submittals to EPA.
- For purposes of compliance with the required ER, on days when MEG status is active Measure #2 is considered to have not been taken.
- Load Shifting is described in an attachment to this sheet.

Load Shifting to Clean Units

HEDD:
7/11/2007

Units Receiving MW	Row	Cap	lb/mwh	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Bergen 1	25	876	0.170	1	445	410	401	401	400	402	405	400	487	408	468	440	427	427	466	503	497	460	426	418	448	453	418	326
Bergen 2	26	660	0.032	2	222	220	221	219	219	219	236	248	341	430	455	337	380	363	365	373	463	418	359	383	346	364	320	
Boston 1	27	31	0.648	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Boston 2	28	31	0.648	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Union 1	34	695	0.025	5	185	187	184	184	183	183	189	215	214	214	214	214	214	214	214	214	214	214	214	214	214	214	214	
Union 2	35	595	0.057	6	-	-	-	-	-	-	-	95	185	236	393	469	413	475	470	470	460	450	405	410	403	295	177	
Room				21407	971	1031	1042	1044	1044	1000	1084	1204	927	820	733	765	895	810	681	835	698	612	816	762	788	1081	1363	
lb/mwh avg					0.1571	0.106	0.109	0.106	0.106	0.103	0.098	0.091	0.083	0.074	0.087	0.100	0.086	0.083	0.083	0.083	0.083	0.076	0.077	0.077	0.082	0.090		

Units Giving MW	Row	Cap	lb/mwh	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Bergen 3	5	17135	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Burlington 5	4		10		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Edison 1	6	4296	4	10	-	-	-	-	-	-	-	-	-	-	75	125	41	9	123	95	30	-	-	-	-	-	-	
Edison 2	6	5594	3	10	-	-	-	-	-	-	-	-	-	-	-	-	-	5	8	-	-	-	2	-	4	1	-	
Edison 3	7		10		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Hudson 1	8	2378	5	278	155	30																						
Kennedy 1	9	13288	2	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	14	-	-	-	-	-	
National Park	13		10		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Salem 1	14		10		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Sewaren 1	15	0.773	9	21	3																							
Sewaren 2	10	0.575	9	20	20	21	20	21	21	20	20	20	21	40	52	51	54	52	57	74	93	19	22	23	23	21	21	
Sewaren 3	7	1.302	7	15										31	45	57	59	55	55	73	80	37	21	19	18	18	7	
Sewaren 4	18	1.367	6	15										23	53	93	75	92	92	77	70	25	29	21	26	25	20	
lb/mwh avg				2.115	2.182	2.031	0.875	0.576	0.575	0.575	0.575	0.575	0.900	1.515	2.145	2.400	1.688	1.268	2.059	2.109	2.046	4.183	1.225	1.088	1.333	1.154	1.088	
Sum of MW			3,387	335	206	109	20	21	21	20	20	41	99	220	327	229	283	401	325	328	104	73	63	74	64	60	45	

Full Shift	Row	Total	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Full Shift		(tons)																								
Nox Reduction		3.164	0.336	0.218	0.103	0.008	0.008	0.005	0.005	0.005	0.017	0.045	0.237	0.355	0.182	0.164	0.393	0.328	0.336	0.212	0.042	0.091	0.046	0.034	0.030	0.022

Partial Shift	lb/mwh	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Free Space	17.105	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
MW	13.288	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	14	0	0	0	0	0	
MW Shifted	5.594	3	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	6	9	0	2	0	4	1	0	0
NOx Saved	0.036	4	0	0	0	0	0	0	0	0	0	0	0	76	128	41	9	123	90	30	0	0	0	0	0	0
CO2 Saved	2.919	5	0	272	185	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CO2 Shifted	1.367	6	0	0	0	0	0	0	0	0	0	0	23	53	63	75	52	92	77	70	265	26	21	28	23	20
CO2 Saved	1.302	7	0	0	0	0	0	0	0	0	0	20	33	48	57	59	55	85	73	80	373	21	19	19	19	7
CO2 Shifted	0.773	8	21	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CO2 Saved	0.676	9	20	20	21	20	21	21	20	20	21	40	52	61	54	90	97	74	33	18	22	23	23	21	21	21
CO2 Shifted	0.000	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CO2 Saved	0.000	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CO2 Shifted	0.000	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CO2 Saved	0.000	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Partial Shift	lb/mwh	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Free Space			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
MW	17.105	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	9	0	0	0	0	
MW Shifted			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	5	9	0	0	0	
NOx Saved	0.036		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Partial Shift	lb/mwh	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Free Space	5.594	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
MW	13.288	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	14	0	0	0	0	0	
MW Shifted	5.594	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
NOx Saved	0.036	4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Partial Shift	lb/mwh	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Free Space			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MW	5.594	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MW Shifted			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOx Saved	0.060		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Partial Shift	lb/mwh	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Free Space			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
MW	4.235	4	0	0	0	0	0	0	0	0	0	0	76	126	41	91	123	93	30	0	0	0	0	0	0	
MW Shifted			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
NOx Saved	0.000		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Partial Shift	lb/mwh	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Free Space			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
MW	2.378	5	278	185	89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
MW Shifted			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
NOx Saved	0.000		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Partial Shift	lb/mwh	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Free Space			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MW	1.357	6	16	0	0	0	0	0	0	0	0	23	53	63	75	97	22	77	70	25	28	21	28	23	20	23
MW Shifted			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NOx Saved	0.040		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

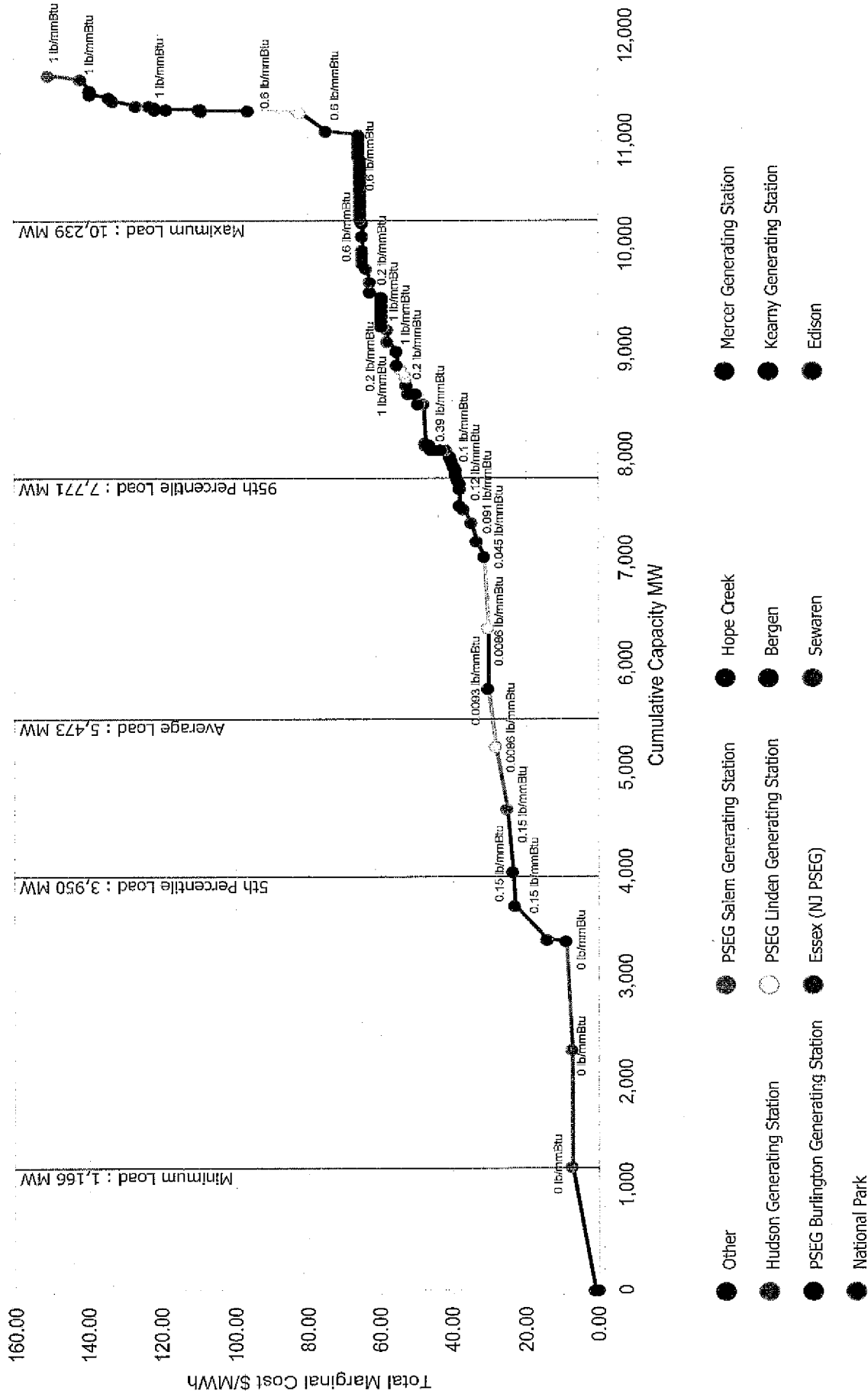
Partial Shift	Row	lb/mwh	Rank	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
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APPENDIX B

Supply Curve for PSEG Zone – July 2009

Supply curve for PSEG Zone – July 2009 - (Ventyx Database)

Zone Name: Public Service Electric & Gas Company



Notes: lb/mmBtu values represent the associated facility/unit NO_x emission limits when operating on the primary fuel as reflected in the Title V Operating Permits. This chart represents an estimation of total marginal costs vs cumulative capacity for PSEG's generating fleet in NJ and should be considered representative.

Attachment 2
Burlington Units No. 9 and 11
Essex Units No. 10, 11, and 12
Water Injection Use on HED Days

Burlington Generating Station
Water Injection - 2014

HED Days										AVG. GPM	
ORIS	UNIT ID	Eng.	DATE	HOUR	ONLINE	MW	MW tag	Fuel	Base/Peak	A	B

Units were not in service during any of the 2014 HED days

Essex Generating Station
Water Injection - 2014

ORIS	UNIT ID	Eng.	HED Days		ONLINE	MW	MW tag	Fuel	AVG. GPM	
			DATE	HOUR					A	B
2401	2001	101	2-Jul-14	12	1	9 MW		PNG	11.0	11.0
2401	2001	101	2-Jul-14	13	1	30 MW		PNG	11.0	11.0
2401	2001	101	2-Jul-14	14	1	29 MW		PNG	11.0	11.0
2401	2001	101	2-Jul-14	15	1	28 MW		PNG	11.0	11.0
2401	2001	101	2-Jul-14	16	1	29 MW		PNG	11.0	11.0
2401	2001	101	2-Jul-14	17	1	33 MW		PNG	11.0	11.0
2401	2001	101	2-Jul-14	18	1	35 MW		PNG	11.0	11.1
2401	2001	101	2-Jul-14	19	1	29 MW		PNG	9.9	9.6
2401	2001	101	8-Jul-14	14	1	13 MW		PNG	10.8	0.0
2401	2001	101	8-Jul-14	15	1	31 MW		PNG	10.8	0.0
2401	2001	101	8-Jul-14	16	1	32 MW		PNG	10.8	0.0
2401	2001	101	8-Jul-14	17	1	31 MW		PNG	10.7	0.0
2401	2001	101	8-Jul-14	18	1	17 MW		PNG	0.0	0.0
2401	2001	101	23-Jul-14	15	1	11 MW		PNG	11.3	0.0
2401	2001	101	23-Jul-14	16	1	32 MW		PNG	11.1	0.0
2401	2001	101	23-Jul-14	17	1	33 MW		PNG	11.0	0.0
2401	2001	101	23-Jul-14	18	1	19 MW		PNG	11.1	0.0
2401	4001	102	2-Jul-14	12	1	8 MW		PNG	0.0	0.0
2401	4001	102	2-Jul-14	13	1	28 MW		PNG	11.0	11.0
2401	4001	102	2-Jul-14	14	1	26 MW		PNG	11.0	11.0
2401	4001	102	2-Jul-14	15	1	25 MW		PNG	11.0	11.0
2401	4001	102	2-Jul-14	16	1	26 MW		PNG	11.0	11.0
2401	4001	102	2-Jul-14	17	1	31 MW		PNG	11.0	11.0
2401	4001	102	2-Jul-14	18	1	32 MW		PNG	11.0	11.0
2401	4001	102	2-Jul-14	19	1	27 MW		PNG	10.0	10.0
2401	4001	102	8-Jul-14	14	1	12 MW		PNG	0.0	11.0
2401	4001	102	8-Jul-14	15	1	28 MW		PNG	10.5	10.5
2401	4001	102	8-Jul-14	16	1	28 MW		PNG	10.5	10.5
2401	4001	102	8-Jul-14	17	1	28 MW		PNG	10.5	10.5
2401	4001	102	8-Jul-14	18	1	15 MW		PNG	0.0	0.0
2401	4001	102	23-Jul-14	15	1	11 MW		PNG	11.0	0.0
2401	4001	102	23-Jul-14	16	1	29 MW		PNG	11.0	11.0
2401	4001	102	23-Jul-14	17	1	29 MW		PNG	11.0	11.0
2401	4001	102	23-Jul-14	18	1	17 MW		PNG	10.0	9.0
2401	10001	103	2-Jul-14	12	1	9 MW		PNG	11.0	27.0
2401	10001	103	2-Jul-14	13	1	29 MW		PNG	11.0	27.0
2401	10001	103	2-Jul-14	14	1	30 MW		PNG	11.0	28.7
2401	10001	103	2-Jul-14	15	1	30 MW		PNG	11.0	28.7
2401	10001	103	2-Jul-14	16	1	30 MW		PNG	11.0	28.6
2401	10001	103	2-Jul-14	17	1	34 MW		PNG	11.0	28.6
2401	10001	103	2-Jul-14	18	1	36 MW		PNG	11.0	28.8
2401	10001	103	2-Jul-14	19	1	29 MW		PNG	8.2	28.2
2401	10001	103	8-Jul-14	14	1	14 MW		PNG	10.7	28.0
2401	10001	103	8-Jul-14	15	1	32 MW		PNG	10.7	28.0
2401	10001	103	8-Jul-14	16	1	32 MW		PNG	10.7	28.0
2401	10001	103	8-Jul-14	17	1	32 MW		PNG	10.7	28.0
2401	10001	103	8-Jul-14	18	1	16 MW		PNG	9.0	9.0
2401	10001	103	23-Jul-14	15	1	13 MW		PNG	0.0	0.0
2401	10001	103	23-Jul-14	16	1	31 MW		PNG	11.0	28.9
2401	10001	103	23-Jul-14	17	1	32 MW		PNG	11.0	29.5
2401	10001	103	23-Jul-14	18	1	18 MW		PNG	11.0	29.5
2401	12001	104	2-Jul-14	12	1	9 MW		PNG	0.0	0.0
2401	12001	104	2-Jul-14	13	1	22 MW		PNG	11.5	11.5
2401	12001	104	2-Jul-14	14	1	9 MW		PNG	12.0	12.0

Essex Generating Station
Water Injection - 2014

ORIS	UNIT ID	Eng.	HED Days		ONLINE	MW	MW tag	Fuel	AVG. GPM	
			DATE	HOUR					A	B
2401	12001	104	2-Jul-14	15	1	9 MW		PNG	11.0	11.0
2401	12001	104	2-Jul-14	16	1	9 MW		PNG	11.0	11.0
2401	12001	104	2-Jul-14	17	1	14 MW		PNG	11.0	11.0
2401	12001	104	2-Jul-14	18	1	16 MW		PNG	11.0	11.0
2401	12001	104	2-Jul-14	19	1	14 MW		PNG	9.0	9.5
2401	12001	104	8-Jul-14	14	1	13 MW		PNG	0.0	11.4
2401	12001	104	8-Jul-14	15	1	33 MW		PNG	0.0	11.3
2401	12001	104	8-Jul-14	16	1	32 MW		PNG	0.0	11.4
2401	12001	104	8-Jul-14	17	1	31 MW		PNG	0.0	11.4
2401	12001	104	8-Jul-14	18	1	16 MW		PNG	0.0	0.0
2401	12001	104	23-Jul-14	15	1	12 MW		PNG	0.0	0.0
2401	12001	104	23-Jul-14	16	1	31 MW		PNG	0.0	9.7
2401	12001	104	23-Jul-14	17	1	18 MW		PNG	0.0	10.5
2401	14001	111	2-Jul-14	13	1	33 MW		PNG	13.5	9.2
2401	14001	111	2-Jul-14	14	1	35 MW		PNG	13.4	13.3
2401	14001	111	2-Jul-14	15	1	35 MW		PNG	13.4	13.3
2401	14001	111	2-Jul-14	16	1	35 MW		PNG	13.4	13.3
2401	14001	111	2-Jul-14	17	1	13 MW		PNG	13.4	13.3
2401	14001	111	8-Jul-14	17	1	24 MW		PNG	0.0	0.0
2401	14001	111	8-Jul-14	18	1	26 MW		PNG	13.3	13.3
2401	14001	111	23-Jul-14	15	1	2 MW		PNG	0.0	11.7
2401	14001	111	23-Jul-14	16	1	28 MW		PNG	0.0	13.6
2401	14001	111	23-Jul-14	17	1	22 MW		PNG	0.0	0.0
2401	16001	112	2-Jul-14	13	1	31 MW		PNG	11.4	13.0
2401	16001	112	2-Jul-14	14	1	33 MW		PNG	13.3	13.0
2401	16001	112	2-Jul-14	15	1	33 MW		PNG	13.9	12.9
2401	16001	112	2-Jul-14	16	1	34 MW		PNG	13.9	12.9
2401	16001	112	2-Jul-14	17	1	13 MW		PNG	13.9	12.2
2401	16001	112	8-Jul-14	17	1	29 MW		PNG	0.0	11.9
2401	16001	112	8-Jul-14	18	1	26 MW		PNG	0.0	13.0
2401	16001	112	23-Jul-14	15	1	2 MW		PNG	0.0	13.7
2401	16001	112	23-Jul-14	16	1	22 MW		PNG	0.0	13.5
2401	16001	112	23-Jul-14	17	1	21 MW		PNG	0.0	0.0
2401	18001	113	2-Jul-14	13	1	31 MW		PNG	15.1	12.8
2401	18001	113	2-Jul-14	14	1	18 MW		PNG	14.4	8.8
2401	18001	113	2-Jul-14	15	1	18 MW		PNG	13.7	0.0
2401	18001	113	2-Jul-14	16	1	18 MW		PNG	13.6	0.0
2401	18001	113	2-Jul-14	17	1	6 MW		PNG	13.6	0.0
2401	18001	113	8-Jul-14	17	1	15 MW		PNG	11.1	11.3
2401	18001	113	8-Jul-14	18	1	13 MW		PNG	12.9	13.0
2401	18001	113	23-Jul-14	15	1	5 MW		PNG	14.1	0.0
2401	18001	113	23-Jul-14	16	1	35 MW		PNG	0.0	13.4
2401	18001	113	23-Jul-14	17	1	22 MW		PNG	0.0	0.0
2401	20001	114	2-Jul-14	13	1	27 MW		PNG	9.6	10.1
2401	20001	114	2-Jul-14	14	1	28 MW		PNG	14.2	12.9
2401	20001	114	2-Jul-14	15	1	28 MW		PNG	13.6	13.0
2401	20001	114	2-Jul-14	16	1	29 MW		PNG	13.6	13.0
2401	20001	114	2-Jul-14	17	1	11 MW		PNG	13.6	13.0
2401	20001	114	8-Jul-14	17	1	25 MW		PNG	0.0	0.0
2401	20001	114	8-Jul-14	18	1	23 MW		PNG	13.0	13.0
2401	20001	114	23-Jul-14	15	1	3 MW		PNG	13.4	13.3
2401	20001	114	23-Jul-14	16	1	30 MW		PNG	13.3	13.4
2401	20001	114	23-Jul-14	17	1	18 MW		PNG	0.0	0.0
2401	22001	121	18-Jun-14	17	1	4 MW		PNG	59.0	13.4 Manual Reading

Essex Generating Station
Water Injection - 2014

ORIS	UNIT ID	Eng.	HED Days		ONLINE	MW	MW tag	Fuel	AVG. GPM	
			DATE	HOUR					A	B
2401	22001	121	18-Jun-14	18	1	23 MW		PNG	59.0	13.4 Manual Reading
2401	22001	121	2-Jul-14	13	1	33 MW		PNG	13.0	13.0
2401	22001	121	2-Jul-14	14	1	36 MW		PNG	13.1	12.9
2401	22001	121	2-Jul-14	15	1	36 MW		PNG	12.9	12.9
2401	22001	121	2-Jul-14	16	1	36 MW		PNG	12.9	12.9
2401	22001	121	2-Jul-14	17	1	36 MW		PNG	12.9	12.9
2401	22001	121	2-Jul-14	18	1	36 MW		PNG	12.9	12.9
2401	22001	121	2-Jul-14	19	1	24 MW		PNG	12.9	12.9
2401	22001	121	8-Jul-14	17	1	29 MW		PNG	12.0	12.0
2401	22001	121	8-Jul-14	18	1	24 MW		PNG	12.1	12.1
2401	22001	121	23-Jul-14	15	1	12 MW		PNG	11.9	0.0
2401	22001	121	23-Jul-14	16	1	35 MW		PNG	12.0	11.9
2401	22001	121	23-Jul-14	17	1	35 MW		PNG	12.1	11.9
2401	22001	121	23-Jul-14	18	1	20 MW		PNG	12.0	11.0
2401	24001	122	2-Jul-14	13	1	33 MW		PNG	12.0	12.0
2401	24001	122	2-Jul-14	14	1	36 MW		PNG	12.1	12.3
2401	24001	122	2-Jul-14	15	1	36 MW		PNG	12.1	12.3
2401	24001	122	2-Jul-14	16	1	36 MW		PNG	12.1	12.3
2401	24001	122	2-Jul-14	17	1	26 MW		PNG	12.1	12.3
2401	24001	122	2-Jul-14	18	1	37 MW		PNG	12.1	12.3
2401	24001	122	2-Jul-14	19	1	24 MW		PNG	12.1	12.0
2401	24001	122	8-Jul-14	17	1	21 MW		PNG	12.0	11.9
2401	24001	122	8-Jul-14	18	1	26 MW		PNG	11.9	11.9
2401	24001	122	23-Jul-14	15	1	12 MW		PNG	11.0	0.0
2401	24001	122	23-Jul-14	16	1	36 MW		PNG	12.0	12.1
2401	24001	122	23-Jul-14	17	1	36 MW		PNG	12.0	12.0
2401	24001	122	23-Jul-14	18	1	15 MW		PNG	12.0	9.0
2401	26001	123	2-Jul-14	13	1	32 MW		PNG	12.3	11.9
2401	26001	123	2-Jul-14	14	1	36 MW		PNG	12.5	12.2
2401	26001	123	2-Jul-14	15	1	36 MW		PNG	12.5	12.2
2401	26001	123	2-Jul-14	16	1	36 MW		PNG	12.5	12.2
2401	26001	123	2-Jul-14	17	1	36 MW		PNG	12.5	12.2
2401	26001	123	2-Jul-14	18	1	38 MW		PNG	12.5	12.2
2401	26001	123	2-Jul-14	19	1	11 MW		PNG	12.5	0.0
2401	26001	123	8-Jul-14	17	1	29 MW		PNG	12.3	12.0
2401	26001	123	8-Jul-14	18	1	26 MW		PNG	12.3	12.0
2401	26001	123	23-Jul-14	15	1	12 MW		PNG	0.0	12.0
2401	26001	123	23-Jul-14	16	1	34 MW		PNG	12.1	12.1
2401	26001	123	23-Jul-14	17	1	32 MW		PNG	12.1	12.1
2401	26001	123	23-Jul-14	18	1	11 MW		PNG	0.0	11.9
2401	28001	124	8-Jul-14	17	1	29 MW		PNG	12.0	12.0
2401	28001	124	8-Jul-14	18	1	26 MW		PNG	12.0	12.0
2401	28001	124	23-Jul-14	15	1	8 MW		PNG	11.8	0.0
2401	28001	124	23-Jul-14	16	1	35 MW		PNG	12.0	12.1
2401	28001	124	23-Jul-14	17	1	33 MW		PNG	12.0	12.0
2401	28001	124	23-Jul-14	18	1	6 MW		PNG	5.0	12.0

Attachment 3
Daily HEDD Emission Reduction
Calculations

Emission Reduction (ER) Calculation pursuant to N.J.A.C. 7:27-19.29(c)

High Electric Demand Day: 6/18/2014								
Station	Unit ID	MW	Heat Input (mmbtu)	NOX Rate (lb/mmbtu)	NOX Rate (lb/mwh)	NOX Emissions (tons)	Control Factor (CF)	Unit Reduction Factor (Nox tons)
Bergen	3	-	-	-	-	-	0.4	-
Burlington	8	-	-	-	-	-	0.4	-
Burlington	91	-	-	-	-	-	0.4	-
Burlington	92	-	-	-	-	-	0.4	-
Burlington	93	-	-	-	-	-	0.4	-
Burlington	94	-	-	-	-	-	0.4	-
Burlington	111	-	-	-	-	-	0.4	-
Burlington	112	-	-	-	-	-	0.4	-
Burlington	113	-	-	-	-	-	0.4	-
Burlington	114	-	-	-	-	-	0.4	-
Burlington	121	136	1,045.2	0.088	0.680	0.046	0.0	-
Burlington	122	135	1,029.5	0.091	0.694	0.047	0.0	-
Burlington	123	132	893.3	0.100	0.680	0.045	0.0	-
Burlington	124	140	1,053.5	0.085	0.643	0.045	0.0	-
Edison	11	40	631.1	0.700	11.043	0.221	0.0	-
Edison	12	41	646.9	0.700	11.044	0.226	0.0	-
Edison	13	-	-	-	-	-	0.0	-
Edison	14	-	-	-	-	-	0.0	-
Edison	21	40	631.1	0.700	11.043	0.221	0.0	-
Edison	22	-	-	-	-	-	0.0	-
Edison	23	-	-	-	-	-	0.0	-
Edison	24	40	631.1	0.700	11.045	0.221	0.0	-
Edison	31	-	-	-	-	-	0.0	-
Edison	32	39	615.3	0.700	11.044	0.215	0.0	-
Edison	33	-	-	-	-	-	0.0	-
Edison	34	36	568.0	0.700	11.044	0.199	0.0	-
Essex	9	-	-	-	-	-	0.0	-
Essex	101	57	966.6	0.700	11.870	0.338	0.4	0.135
Essex	102	52	881.8	0.700	11.871	0.309	0.4	0.123
Essex	103	54	915.7	0.700	11.870	0.321	0.4	0.128
Essex	104	40	678.3	0.700	11.870	0.237	0.4	0.095
Essex	111	-	-	-	-	-	0.4	-
Essex	112	-	-	-	-	-	0.4	-
Essex	113	-	-	-	-	-	0.4	-
Essex	114	-	-	-	-	-	0.4	-
Essex	121	27	457.8	0.700	11.870	0.160	0.4	0.064
Essex	122	23	390.1	0.700	11.874	0.137	0.4	0.055
Essex	123	18	305.2	0.700	11.872	0.107	0.4	0.043
Essex	124	-	-	-	-	-	0.4	-
Kearny	9	-	-	-	-	-	0.4	-
Kearny	121	204	1,779.6	0.089	0.773	0.079	0.0	-
Kearny	122	208	1,696.8	0.084	0.686	0.071	0.0	-
Kearny	123	196	1,786.9	0.085	0.779	0.076	0.0	-
Kearny	124	204	1,673.4	0.083	0.683	0.070	0.0	-
Linden	5	-	-	-	-	-	0.0	-
Linden	6	-	-	-	-	-	0.0	-
Linden	7	171	1,865.2	0.055	0.599	0.051	0.0	-
Linden	8	173	1,638.5	0.046	0.436	0.038	0.0	-
Mercer	3	-	-	-	-	-	0.4	-
National Park	1	-	-	-	-	-	0.4	-
Salem	3	-	-	-	-	-	0.4	-
Sewaren	1	443	6,135.0	0.055	0.760	0.168	0.3	0.050
Sewaren	2	700	9,171.7	0.096	1.258	0.440	0.3	0.132
Sewaren	3	603	8,993.5	0.055	0.823	0.248	0.3	0.074
Sewaren	4	566	7,990.9	0.053	0.752	0.213	0.3	0.064
Sewaren	6	-	-	-	-	-	0.4	-
TOTAL		4,518	55,072			4.549		0.964

Calculation Results:

Emission Factor (EF) = 59.281 tons
 Baseline Emissions (BE) = 4.549 tons
 Reduction Factor (RF) = 18.343 tons

$$ER = \left(\frac{BE}{EF} \right) * RF$$

Emission Reduction (ER) = 1.408 tons

Emission Reduction (ER) Calculation pursuant to N.J.A.C. 7:27-19.29(c)

High Electric Demand Day: 7/2/2014								
Station	Unit ID	MW	Heat Input (mmbtu)	NOX Rate (lb/mmbtu)	NOX Rate (lb/mwh)	NOX Emissions (tons)	Control Factor (CF)	Unit Reduction Factor (Nox tons)
Bergen	3	-	-	-	-	-	0.4	-
Burlington	8	-	-	-	-	-	0.4	-
Burlington	91	-	-	-	-	-	0.4	-
Burlington	92	-	-	-	-	-	0.4	-
Burlington	93	-	-	-	-	-	0.4	-
Burlington	94	-	-	-	-	-	0.4	-
Burlington	111	-	-	-	-	-	0.4	-
Burlington	112	-	-	-	-	-	0.4	-
Burlington	113	-	-	-	-	-	0.4	-
Burlington	114	-	-	-	-	-	0.4	-
Burlington	121	394	3,420.5	0.087	0.758	0.149	0.0	-
Burlington	122	399	3,954.4	0.082	0.809	0.161	0.0	-
Burlington	123	393	3,587.6	0.087	0.797	0.157	0.0	-
Burlington	124	412	3,532.8	0.078	0.665	0.137	0.0	-
Edison	11	191	2,871.0	0.700	10.522	1.005	0.0	-
Edison	12	93	1,398.0	0.700	10.525	0.489	0.0	-
Edison	13	-	-	-	-	-	0.0	-
Edison	14	317	4,765.0	0.700	10.523	1.668	0.0	-
Edison	21	185	2,780.8	0.700	10.522	0.973	0.0	-
Edison	22	142	2,134.4	0.700	10.522	0.747	0.0	-
Edison	23	157	2,359.8	0.700	10.522	0.826	0.0	-
Edison	24	-	-	-	-	-	0.0	-
Edison	31	409	6,147.8	0.700	10.522	2.152	0.0	-
Edison	32	140	2,104.4	0.700	10.522	0.737	0.0	-
Edison	33	189	2,840.9	0.700	10.522	0.994	0.0	-
Edison	34	132	1,984.1	0.700	10.522	0.694	0.0	-
Essex	9	479	4,261.5	0.070	0.623	0.149	0.0	-
Essex	101	222	3,484.0	0.700	10.986	1.219	0.4	0.488
Essex	102	203	3,186.1	0.700	10.987	1.115	0.4	0.446
Essex	103	227	3,562.5	0.700	10.986	1.247	0.4	0.499
Essex	104	102	1,601.0	0.700	10.987	0.560	0.4	0.224
Essex	111	151	2,369.8	0.700	10.985	0.829	0.4	0.332
Essex	112	144	2,259.9	0.700	10.985	0.791	0.4	0.316
Essex	113	91	1,428.2	0.700	10.988	0.500	0.4	0.200
Essex	114	123	1,930.3	0.700	10.986	0.676	0.4	0.270
Essex	121	237	3,719.6	0.700	10.986	1.302	0.4	0.521
Essex	122	228	3,578.4	0.700	10.986	1.252	0.4	0.501
Essex	123	225	3,531.2	0.700	10.986	1.236	0.4	0.494
Essex	124	-	-	-	-	-	0.4	-
Kearny	9	-	-	-	-	-	0.4	-
Kearny	121	458	4,373.9	0.074	0.705	0.161	0.0	-
Kearny	122	523	4,515.3	0.081	0.701	0.183	0.0	-
Kearny	123	496	4,769.6	0.075	0.723	0.179	0.0	-
Kearny	124	425	4,208.6	0.077	0.767	0.163	0.0	-
Linden	5	-	-	-	-	-	0.0	-
Linden	6	1,277	15,422.6	0.036	0.440	0.281	0.0	-
Linden	7	-	-	-	-	-	0.0	-
Linden	8	586	6,465.3	0.034	0.371	0.109	0.0	-
Mercer	3	-	-	-	-	-	0.4	-
National Park	1	-	-	-	-	-	0.4	-
Salem	3	-	-	-	-	-	0.4	-
Sewaren	1	883	15,805.3	0.087	1.550	0.684	0.3	0.205
Sewaren	2	773	10,416.7	0.096	1.294	0.500	0.3	0.150
Sewaren	3	952	12,568.4	0.064	0.842	0.401	0.3	0.120
Sewaren	4	932	11,280.5	0.094	1.133	0.528	0.3	0.158
Sewaren	6	-	-	-	-	-	0.4	-
TOTAL		13,290	168,620			24.957		4.925

Calculation Results:

Emission Factor (EF) = 59.281 tons
 Baseline Emissions (BE) = 24.957 tons
 Reduction Factor (RF) = 18.343 tons

$$ER = \left(\frac{BE}{EF} \right) * RF$$

Emission Reduction (ER) = 7.722 tons

Emission Reduction (ER) Calculation pursuant to N.J.A.C. 7:27-19.29(c)

High Electric Demand Day: 7/8/2014								
Station	Unit ID	MW	Heat Input (mmbtu)	NOX Rate (lb/mmbtu)	NOX Rate (lb/mwh)	NOX Emissions (tons)	Control Factor (CF)	Unit Reduction Factor (Nox tons)
Bergen	3	-	-	-	-	-	0.4	-
Burlington	8	-	-	-	-	-	0.4	-
Burlington	91	-	-	-	-	-	0.4	-
Burlington	92	-	-	-	-	-	0.4	-
Burlington	93	-	-	-	-	-	0.4	-
Burlington	94	-	-	-	-	-	0.4	-
Burlington	111	-	-	-	-	-	0.4	-
Burlington	112	-	-	-	-	-	0.4	-
Burlington	113	-	-	-	-	-	0.4	-
Burlington	114	-	-	-	-	-	0.4	-
Burlington	121	395	3,326.4	0.085	0.714	0.141	0.0	-
Burlington	122	396	3,802.8	0.078	0.753	0.149	0.0	-
Burlington	123	388	3,467.2	0.084	0.751	0.146	0.0	-
Burlington	124	406	3,388.9	0.076	0.638	0.129	0.0	-
Edison	11	124	1,863.9	0.700	10.522	0.652	0.0	-
Edison	12	53	796.5	0.700	10.521	0.279	0.0	-
Edison	13	-	-	-	-	-	0.0	-
Edison	14	-	-	-	-	-	0.0	-
Edison	21	120	1,803.9	0.700	10.523	0.631	0.0	-
Edison	22	124	1,863.9	0.700	10.522	0.652	0.0	-
Edison	23	-	-	-	-	-	0.0	-
Edison	24	-	-	-	-	-	0.0	-
Edison	31	124	1,863.9	0.700	10.522	0.652	0.0	-
Edison	32	126	1,893.9	0.700	10.521	0.663	0.0	-
Edison	33	-	-	-	-	-	0.0	-
Edison	34	-	-	-	-	-	0.0	-
Essex	9	316	2,804.6	0.077	0.684	0.108	0.0	-
Essex	101	124	1,946.0	0.700	10.986	0.681	0.4	0.272
Essex	102	111	1,741.9	0.700	10.986	0.610	0.4	0.244
Essex	103	126	1,977.4	0.700	10.985	0.692	0.4	0.277
Essex	104	125	1,961.7	0.700	10.986	0.687	0.4	0.275
Essex	111	50	784.8	0.700	10.988	0.275	0.4	0.110
Essex	112	55	863.2	0.700	10.987	0.302	0.4	0.121
Essex	113	28	439.4	0.700	10.986	0.154	0.4	0.062
Essex	114	48	753.4	0.700	10.988	0.264	0.4	0.105
Essex	121	53	831.8	0.700	10.987	0.291	0.4	0.116
Essex	122	47	737.7	0.700	10.987	0.258	0.4	0.103
Essex	123	55	863.2	0.700	10.987	0.302	0.4	0.121
Essex	124	55	863.2	0.700	10.987	0.302	0.4	0.121
Kearny	9	-	-	-	-	-	0.4	-
Kearny	121	510	4,572.6	0.089	0.797	0.203	0.0	-
Kearny	122	580	4,776.5	0.085	0.696	0.202	0.0	-
Kearny	123	553	5,038.7	0.075	0.682	0.189	0.0	-
Kearny	124	561	5,047.4	0.098	0.884	0.248	0.0	-
Linden	5	-	-	-	-	-	0.0	-
Linden	6	-	-	-	-	-	0.0	-
Linden	7	-	-	-	-	-	0.0	-
Linden	8	-	-	-	-	-	0.0	-
Mercer	3	-	-	-	-	-	0.4	-
National Park	1	-	-	-	-	-	0.4	-
Salem	3	-	-	-	-	-	0.4	-
Sewaren	1	1,000	15,108.4	0.062	0.940	0.470	0.3	0.141
Sewaren	2	1,172	13,532.2	0.096	1.108	0.650	0.3	0.195
Sewaren	3	142	2,239.5	0.050	0.793	0.056	0.3	0.017
Sewaren	4	670	11,643.0	0.104	1.805	0.605	0.3	0.181
Sewaren	6	-	-	-	-	-	0.4	-
TOTAL		8,637	102,598			11.643		2.461

Calculation Results:

Emission Factor (EF) = 59.281 tons
 Baseline Emissions (BE) = 11.643 tons
 Reduction Factor (RF) = 18.343 tons

$$ER = \left(\frac{BE}{EF} \right) * RF$$

Emission Reduction (ER) = 3.603 tons

Emission Reduction (ER) Calculation pursuant to N.J.A.C. 7:27-19.29(c)

High Electric Demand Day: 7/23/2014								
Station	Unit ID	MW	Heat Input (mmbtu)	NOX Rate (lb/mmbtu)	NOX Rate (lb/mwh)	NOX Emissions (tons)	Control Factor (CF)	Unit Reduction Factor (Nox tons)
Bergen	3	-	-	-	-	-	0.4	-
Burlington	8	-	-	-	-	-	0.4	-
Burlington	91	-	-	-	-	-	0.4	-
Burlington	92	-	-	-	-	-	0.4	-
Burlington	93	-	-	-	-	-	0.4	-
Burlington	94	-	-	-	-	-	0.4	-
Burlington	111	-	-	-	-	-	0.4	-
Burlington	112	-	-	-	-	-	0.4	-
Burlington	113	-	-	-	-	-	0.4	-
Burlington	114	-	-	-	-	-	0.4	-
Burlington	121	250	2,196.9	0.087	0.765	0.096	0.0	-
Burlington	122	252	2,533.8	0.080	0.807	0.102	0.0	-
Burlington	123	249	2,346.7	0.080	0.758	0.094	0.0	-
Burlington	124	256	2,255.5	0.078	0.684	0.088	0.0	-
Edison	11	75	1,127.4	0.700	10.524	0.395	0.0	-
Edison	12	78	1,172.4	0.700	10.523	0.410	0.0	-
Edison	13	-	-	-	-	-	0.0	-
Edison	14	-	-	-	-	-	0.0	-
Edison	21	94	1,412.9	0.700	10.522	0.495	0.0	-
Edison	22	96	1,443.0	0.700	10.523	0.505	0.0	-
Edison	23	-	-	-	-	-	0.0	-
Edison	24	-	-	-	-	-	0.0	-
Edison	31	113	1,698.5	0.700	10.522	0.595	0.0	-
Edison	32	116	1,743.6	0.700	10.522	0.610	0.0	-
Edison	33	-	-	-	-	-	0.0	-
Edison	34	-	-	-	-	-	0.0	-
Essex	9	-	-	-	-	-	0.0	-
Essex	101	95	1,490.9	0.700	10.984	0.522	0.4	0.209
Essex	102	86	1,349.6	0.700	10.986	0.472	0.4	0.189
Essex	103	94	1,475.2	0.700	10.986	0.516	0.4	0.207
Essex	104	61	957.3	0.700	10.987	0.335	0.4	0.134
Essex	111	52	816.1	0.700	10.987	0.286	0.4	0.114
Essex	112	45	706.3	0.700	10.987	0.247	0.4	0.099
Essex	113	62	973.1	0.700	10.987	0.341	0.4	0.136
Essex	114	51	800.4	0.700	10.988	0.280	0.4	0.112
Essex	121	102	1,600.8	0.700	10.985	0.560	0.4	0.224
Essex	122	99	1,553.7	0.700	10.986	0.544	0.4	0.218
Essex	123	89	1,396.7	0.700	10.984	0.489	0.4	0.196
Essex	124	82	1,287.0	0.700	10.985	0.450	0.4	0.180
Kearny	9	-	-	-	-	-	0.4	-
Kearny	121	288	2,504.6	0.083	0.719	0.104	0.0	-
Kearny	122	322	2,571.6	0.076	0.607	0.098	0.0	-
Kearny	123	288	2,578.8	0.067	0.602	0.087	0.0	-
Kearny	124	311	2,704.6	0.073	0.638	0.099	0.0	-
Linden	5	-	-	-	-	-	0.0	-
Linden	6	367	4,521.8	0.037	0.453	0.083	0.0	-
Linden	7	400	4,818.7	0.039	0.473	0.095	0.0	-
Linden	8	413	4,619.9	0.036	0.404	0.083	0.0	-
Mercer	3	-	-	-	-	-	0.4	-
National Park	1	-	-	-	-	-	0.4	-
Salem	3	-	-	-	-	-	0.4	-
Sewaren	1	-	-	-	-	-	0.3	-
Sewaren	2	-	-	-	-	-	0.3	-
Sewaren	3	-	-	-	-	-	0.3	-
Sewaren	4	-	-	-	-	-	0.3	-
Sewaren	6	-	-	-	-	-	0.4	-
TOTAL		4,886	56,658			9.079		2.017

Calculation Results:

Emission Factor (EF) = 59.281 tons
 Baseline Emissions (BE) = 9.079 tons
 Reduction Factor (RF) = 18.343 tons

$$ER = \left(\frac{BE}{EF} \right) * RF$$

Emission Reduction (ER) = 2.809 tons

Emission Reduction (ER) Calculation pursuant to N.J.A.C. 7:27-19.29(c)

High Electric Demand Day: 9/2/2014								
Station	Unit ID	MW	Heat Input (mmbtu)	NOX Rate (lb/mmbtu)	NOX Rate (lb/mwh)	NOX Emissions (tons)	Control Factor (CF)	Unit Reduction Factor (Nox tons)
Bergen	3	-	-	-	-	-	0.4	-
Burlington	8	-	-	-	-	-	0.4	-
Burlington	91	-	-	-	-	-	0.4	-
Burlington	92	-	-	-	-	-	0.4	-
Burlington	93	-	-	-	-	-	0.4	-
Burlington	94	-	-	-	-	-	0.4	-
Burlington	111	-	-	-	-	-	0.4	-
Burlington	112	-	-	-	-	-	0.4	-
Burlington	113	-	-	-	-	-	0.4	-
Burlington	114	-	-	-	-	-	0.4	-
Burlington	121	118	1,070.9	0.089	0.806	0.048	0.0	-
Burlington	122	116	1,207.6	0.082	0.855	0.050	0.0	-
Burlington	123	115	785.4	0.123	0.837	0.048	0.0	-
Burlington	124	117	1,061.5	0.088	0.797	0.047	0.0	-
Edison	11	-	-	-	-	-	0.0	-
Edison	12	-	-	-	-	-	0.0	-
Edison	13	-	-	-	-	-	0.0	-
Edison	14	-	-	-	-	-	0.0	-
Edison	21	-	-	-	-	-	0.0	-
Edison	22	-	-	-	-	-	0.0	-
Edison	23	-	-	-	-	-	0.0	-
Edison	24	-	-	-	-	-	0.0	-
Edison	31	-	-	-	-	-	0.0	-
Edison	32	-	-	-	-	-	0.0	-
Edison	33	-	-	-	-	-	0.0	-
Edison	34	-	-	-	-	-	0.0	-
Essex	9	184	1,557.9	0.082	0.693	0.064	0.0	-
Essex	101	-	-	-	-	-	0.4	-
Essex	102	-	-	-	-	-	0.4	-
Essex	103	-	-	-	-	-	0.4	-
Essex	104	-	-	-	-	-	0.4	-
Essex	111	-	-	-	-	-	0.4	-
Essex	112	-	-	-	-	-	0.4	-
Essex	113	-	-	-	-	-	0.4	-
Essex	114	-	-	-	-	-	0.4	-
Essex	121	-	-	-	-	-	0.4	-
Essex	122	-	-	-	-	-	0.4	-
Essex	123	-	-	-	-	-	0.4	-
Essex	124	-	-	-	-	-	0.4	-
Kearny	9	-	-	-	-	-	0.4	-
Kearny	121	316	2,464.3	0.087	0.676	0.107	0.0	-
Kearny	122	326	2,426.2	0.079	0.588	0.096	0.0	-
Kearny	123	266	2,230.2	0.071	0.593	0.079	0.0	-
Kearny	124	275	2,262.7	0.077	0.630	0.087	0.0	-
Linden	5	-	-	-	-	-	0.0	-
Linden	6	-	-	-	-	-	0.0	-
Linden	7	-	-	-	-	-	0.0	-
Linden	8	-	-	-	-	-	0.0	-
Mercer	3	-	-	-	-	-	0.4	-
National Park	1	-	-	-	-	-	0.4	-
Salem	3	-	-	-	-	-	0.4	-
Sewaren	1	961	11,201.3	0.063	0.737	0.354	0.3	0.106
Sewaren	2	890	10,865.6	0.096	1.172	0.522	0.3	0.156
Sewaren	3	-	-	-	-	-	0.3	-
Sewaren	4	871	11,845.3	0.069	0.935	0.407	0.3	0.122
Sewaren	6	-	-	-	-	-	0.4	-
TOTAL		4,555	48,979			1.907		0.385

Calculation Results:

Emission Factor (EF) = 59.281 tons
 Baseline Emissions (BE) = 1.907 tons
 Reduction Factor (RF) = 18.343 tons

$$ER = \left(\frac{BE}{EF} \right) * RF$$

Emission Reduction (ER) = 0.590 tons

Attachment 4
HEDD Hourly Data

HEDD Hourly Operating and Emissions Records

				<i>NOx Emissions Mass (lbs)</i>	<i>NOx Emission Rate (lb/MMBtu)</i>	<i>Natural Gas Heat Input (MMBtu)</i>	<i>Oil Heat Input (MMBtu)</i>
<i>Run Time (hrs)</i>				<i>Load (MW)</i>			
Date: 6/18/2014							
Unit:	Burlington	121	121				
	2:00:00 PM	0.12	16.0	4.0	0.164	24.3	0.0
	3:00:00 PM	1.00	42.0	32.4	0.085	381.6	0.0
	4:00:00 PM	1.00	42.0	32.2	0.084	382.8	0.0
	5:00:00 PM	0.75	36.0	23.9	0.093	256.5	0.0
<u>Burlington 121</u>	<u>Total</u>	2.87	136.0	92.4	0.107	1,045.2	0.0
Unit:	Burlington	122	122				
	2:00:00 PM	0.12	17.0	4.7	0.193	24.6	0.0
	3:00:00 PM	1.00	41.0	33.3	0.088	378.1	0.0
	4:00:00 PM	1.00	41.0	31.8	0.084	378.4	0.0
	5:00:00 PM	0.73	36.0	23.9	0.096	248.4	0.0
<u>Burlington 122</u>	<u>Total</u>	2.85	135.0	93.7	0.115	1,029.5	0.0
Unit:	Burlington	123	123				
	2:00:00 PM	0.12	15.0	4.1	0.179	43.9	0.0
	3:00:00 PM	1.00	41.0	31.3	0.086	366.8	0.0
	4:00:00 PM	1.00	41.0	30.9	0.085	340.7	0.0
	5:00:00 PM	0.75	35.0	23.5	0.096	141.9	0.0
<u>Burlington 123</u>	<u>Total</u>	2.87	132.0	89.7	0.112	893.3	0.0
Unit:	Burlington	124	124				
	2:00:00 PM	0.12	17.0	3.8	0.155	24.5	0.0
	3:00:00 PM	1.00	43.0	31.6	0.082	385.7	0.0
	4:00:00 PM	1.00	43.0	31.6	0.082	385.3	0.0
	5:00:00 PM	0.75	37.0	23.0	0.089	258.0	0.0
<u>Burlington 124</u>	<u>Total</u>	2.87	140.0	90.0	0.102	1,053.5	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>Load</i>						
<i>(hrs)</i>	<i>(MW)</i>						
Date: 6/18/2014							
Unit:	Edison	11 A/B	1001				
	4:00:00 PM	1.00	26.0	287.1	0.7	410.2	0.0
	5:00:00 PM	1.00	14.0	154.6	0.7	220.9	0.0
Edison	11 A/B	Total	2.00	40.0	441.7	0.700	631.1
0.0							
Unit:	Edison	12 A/B	3001				
	4:00:00 PM	1.00	26.0	287.1	0.7	410.2	0.0
	5:00:00 PM	1.00	15.0	165.7	0.7	236.7	0.0
Edison	12 A/B	Total	2.00	41.0	452.8	0.700	646.9
0.0							
Unit:	Edison	21 A/B	9001				
	4:00:00 PM	1.00	26.0	287.1	0.7	410.2	0.0
	5:00:00 PM	1.00	14.0	154.6	0.7	220.9	0.0
Edison	21 A/B	Total	2.00	40.0	441.7	0.700	631.1
0.0							
Unit:	Edison	24 A/B	15001				
	4:00:00 PM	1.00	25.0	276.1	0.7	394.4	0.0
	5:00:00 PM	1.00	15.0	165.7	0.7	236.7	0.0
Edison	24 A/B	Total	2.00	40.0	441.8	0.700	631.1
0.0							
Unit:	Edison	32 A/B	19001				
	4:00:00 PM	1.00	25.0	276.1	0.7	394.4	0.0
	5:00:00 PM	1.00	14.0	154.6	0.7	220.9	0.0
Edison	32 A/B	Total	2.00	39.0	430.7	0.700	615.3
0.0							
Unit:	Edison	34 A/B	23001				
	4:00:00 PM	1.00	22.0	243.0	0.7	347.1	0.0
	5:00:00 PM	1.00	14.0	154.6	0.7	220.9	0.0
Edison	34 A/B	Total	2.00	36.0	397.6	0.700	568.0
0.0							
Unit:	Essex	101 A/B	2001				
	4:00:00 PM	1.00	24.0	284.9	0.7	407.0	0.0
	5:00:00 PM	1.00	33.0	391.7	0.7	559.6	0.0
Essex	101 A/B	Total	2.00	57.0	676.6	0.700	966.6
0.0							

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>Load</i>						
<i>(hrs)</i>	<i>(MW)</i>						
Date: 6/18/2014							
Unit:	Essex	102 A/B	4001				
	4:00:00 PM	1.00	24.0	284.9	0.7	407.0	0.0
	5:00:00 PM	1.00	28.0	332.4	0.7	474.8	0.0
Essex	102 A/B	Total	2.00	52.0	0.700	881.8	0.0
Unit:	Essex	103 A/B	10001				
	4:00:00 PM	1.00	23.0	273.0	0.7	390.0	0.0
	5:00:00 PM	1.00	31.0	368.0	0.7	525.7	0.0
Essex	103 A/B	Total	2.00	54.0	0.700	915.7	0.0
Unit:	Essex	104 A/B	12001				
	4:00:00 PM	1.00	25.0	296.7	0.7	423.9	0.0
	5:00:00 PM	1.00	15.0	178.1	0.7	254.4	0.0
Essex	104 A/B	Total	2.00	40.0	0.700	678.3	0.0
Unit:	Essex	121 A/B	22001				
	4:00:00 PM	1.00	4.0	47.5	0.7	67.8	0.0
	5:00:00 PM	1.00	23.0	273.0	0.7	390.0	0.0
Essex	121 A/B	Total	2.00	27.0	0.700	457.8	0.0
Unit:	Essex	122 A/B	24001				
	4:00:00 PM	1.00	8.0	95.0	0.7	135.7	0.0
	5:00:00 PM	1.00	15.0	178.1	0.7	254.4	0.0
Essex	122 A/B	Total	2.00	23.0	0.700	390.1	0.0
Unit:	Essex	123 A/B	26001				
	4:00:00 PM	1.00	7.0	83.1	0.7	118.7	0.0
	5:00:00 PM	1.00	11.0	130.6	0.7	186.5	0.0
Essex	123 A/B	Total	2.00	18.0	0.700	305.2	0.0

* Only hours in which a unit operated are listed.

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				NOx Emissions	NOx Emission	Natural Gas	Oil Heat Input	
				Mass	Rate	Heat Input		
				(lbs)	(lb/MMBtu)	(MMBtu)	(MMBtu)	
				Run Time	Load			
				(hrs)	(MW)			
Date: 6/18/2014								
Unit:	Kearny	121	121					
		2:00:00 PM	0.40	33.0	13.2	0.097	136.3	0.0
		3:00:00 PM	1.00	42.0	32.4	0.079	409.7	0.0
		4:00:00 PM	1.00	41.0	36.1	0.089	405.8	0.0
		5:00:00 PM	1.00	42.0	36.2	0.089	406.5	0.0
		6:00:00 PM	1.00	42.0	37.1	0.091	407.7	0.0
		7:00:00 PM	0.10	4.0	2.7	0.2	13.6	0.0
Kearny	121	Total	4.50	204.0	157.8	0.108	1,779.6	0.0
Unit:	Kearny	122	122					
		2:00:00 PM	0.38	33.0	11.6	0.095	122.4	0.0
		3:00:00 PM	1.00	42.0	27.8	0.072	386.0	0.0
		4:00:00 PM	1.00	43.0	33.6	0.086	391.0	0.0
		5:00:00 PM	1.00	43.0	33.8	0.086	392.8	0.0
		6:00:00 PM	1.00	43.0	33.3	0.085	391.8	0.0
		7:00:00 PM	0.10	4.0	2.6	0.207	12.8	0.0
Kearny	122	Total	4.48	208.0	142.8	0.105	1,696.8	0.0
Unit:	Kearny	123	123					
		2:00:00 PM	0.40	33.0	12.0	0.086	139.3	0.0
		3:00:00 PM	1.00	40.0	33.7	0.082	410.8	0.0
		4:00:00 PM	1.00	40.0	34.3	0.084	408.0	0.0
		5:00:00 PM	1.00	40.0	34.6	0.085	407.1	0.0
		6:00:00 PM	1.00	40.0	35.1	0.086	408.4	0.0
		7:00:00 PM	0.10	3.0	3.0	0.227	13.2	0.0
Kearny	123	Total	4.50	196.0	152.7	0.108	1,786.9	0.0

* Only hours in which a unit operated are listed.

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				NOx Emissions	NOx Emission	Natural Gas	Oil Heat Input	
				Mass	Rate	Heat Input		
				(lbs)	(lb/MMBtu)	(MMBtu)	(MMBtu)	
				Load				
				(MW)				
				Run Time				
				(hrs)				
Date: 6/18/2014								
Unit:	Kearny	124	124					
		2:00:00 PM	0.38	34.0	11.4	0.091	125.2	0.0
		3:00:00 PM	1.00	42.0	28.4	0.074	383.3	0.0
		4:00:00 PM	1.00	42.0	32.6	0.085	383.3	0.0
		5:00:00 PM	1.00	42.0	32.5	0.084	386.6	0.0
		6:00:00 PM	1.00	42.0	31.8	0.083	383.7	0.0
		7:00:00 PM	0.10	2.0	2.6	0.23	11.2	0.0
Kearny	124	Total	4.48	204.0	139.3	0.108	1,673.4	0.0
Unit:	Linden	7	7					
		2:00:00 PM	0.07	0.0	0.6	0.083	7.7	0.0
		3:00:00 PM	1.00	62.0	51.6	0.063	818.5	0.0
		4:00:00 PM	1.00	70.0	33.5	0.038	880.7	0.0
		5:00:00 PM	0.28	39.0	16.6	0.105	158.3	0.0
Linden	7	Total	2.35	171.0	102.4	0.072	1,865.2	0.0
Unit:	Linden	8	8					
		7:00:00 AM	0.13	0.0	1.8	0.096	18.8	0.0
		9:00:00 AM	0.13	0.0	1.9	0.099	19.5	0.0
		2:00:00 PM	0.07	0.0	0.5	0.082	6.3	0.0
		3:00:00 PM	1.00	60.0	36.0	0.052	691.8	0.0
		4:00:00 PM	1.00	70.0	22.2	0.029	766.2	0.0
		5:00:00 PM	0.25	43.0	13.1	0.096	136.0	0.0
Linden	8	Total	2.58	173.0	75.5	0.076	1,638.5	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time</i> <i>(hrs)</i>	<i>Load</i> <i>(MW)</i>	<i>NOx Emissions</i> <i>Mass</i> <i>(lbs)</i>	<i>NOx Emission</i> <i>Rate</i> <i>(lb/MMBtu)</i>	<i>Natural Gas</i> <i>Heat Input</i> <i>(MMBtu)</i>	<i>Oil Heat Input</i> <i>(MMBtu)</i>
Date: 6/18/2014								
Unit:	Sewaren	1	1					
			12:00:00 AM	1.00	0.0	3.0	0.046	66.1
			1:00:00 AM	1.00	0.0	2.8	0.046	61.8
			2:00:00 AM	1.00	0.0	3.6	0.046	79.3
			3:00:00 AM	1.00	0.0	3.0	0.046	65.7
			4:00:00 AM	1.00	0.0	2.9	0.046	64.0
			5:00:00 AM	1.00	0.0	2.4	0.046	52.1
			6:00:00 AM	1.00	0.0	2.6	0.046	55.5
			7:00:00 AM	1.00	0.0	2.5	0.046	55.1
			8:00:00 AM	1.00	0.0	2.7	0.046	57.8
			9:00:00 AM	1.00	21.0	15.2	0.046	329.5
			10:00:00 AM	1.00	24.0	15.5	0.046	336.0
			11:00:00 AM	1.00	24.0	15.4	0.046	334.4
			12:00:00 PM	1.00	25.0	16.2	0.047	344.9
			1:00:00 PM	1.00	30.0	19.1	0.049	390.5
			2:00:00 PM	1.00	30.0	19.5	0.049	397.7
			3:00:00 PM	1.00	55.0	39.5	0.06	658.2
			4:00:00 PM	1.00	71.0	57.1	0.069	827.1
			5:00:00 PM	1.00	72.0	57.6	0.069	834.2
			6:00:00 PM	1.00	44.0	28.1	0.054	520.2
			7:00:00 PM	1.00	25.0	15.3	0.046	332.9
			8:00:00 PM	0.88	22.0	12.5	0.046	272.0
<u>Sewaren</u>	<u>1</u>	<u>Total</u>	20.88	443.0	336.5	0.050	6,135.0	0.0

* Only hours in which a unit operated are listed.

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				NOx Emissions	NOx Emission	Natural Gas	Oil Heat Input	
				Mass	Rate	Heat Input		
				(lbs)	(lb/MMBtu)	(MMBtu)	(MMBtu)	
Run Time				Load				
(hrs)				(MW)				
Date: 6/18/2014								
Unit:	Sewaren	2	2					
	12:00:00 AM	1.00	0.0	5.0	0.096	52.6	0.0	
	1:00:00 AM	1.00	0.0	6.1	0.096	63.3	0.0	
	2:00:00 AM	1.00	0.0	7.2	0.096	74.5	0.0	
	3:00:00 AM	1.00	0.0	6.1	0.096	63.5	0.0	
	4:00:00 AM	1.00	0.0	6.6	0.096	68.7	0.0	
	5:00:00 AM	1.00	7.0	17.3	0.096	179.8	0.0	
	6:00:00 AM	1.00	24.0	35.1	0.096	365.2	0.0	
	7:00:00 AM	1.00	26.0	36.2	0.096	377.0	0.0	
	8:00:00 AM	1.00	28.0	37.7	0.096	393.2	0.0	
	9:00:00 AM	1.00	28.0	38.6	0.096	401.7	0.0	
	10:00:00 AM	1.00	31.0	38.6	0.096	402.6	0.0	
	11:00:00 AM	1.00	31.0	39.9	0.096	415.6	0.0	
	12:00:00 PM	1.00	33.0	40.8	0.096	424.7	0.0	
	1:00:00 PM	1.00	33.0	39.3	0.096	409.2	0.0	
	2:00:00 PM	1.00	45.0	53.2	0.096	553.8	0.0	
	3:00:00 PM	1.00	82.0	87.4	0.096	909.9	0.0	
	4:00:00 PM	1.00	88.0	91.5	0.096	953.2	0.0	
	5:00:00 PM	1.00	84.0	86.9	0.096	905.0	0.0	
	6:00:00 PM	1.00	54.0	57.5	0.096	599.1	0.0	
	7:00:00 PM	1.00	23.0	31.9	0.096	332.2	0.0	
	8:00:00 PM	1.00	21.0	29.9	0.096	311.0	0.0	
	9:00:00 PM	1.00	21.0	29.7	0.096	309.2	0.0	
	10:00:00 PM	1.00	21.0	29.6	0.096	308.3	0.0	
	11:00:00 PM	1.00	20.0	28.6	0.096	298.4	0.0	
Sewaren	2	Total	24.00	700.0	880.7	0.096	9,171.7	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time</i> (hrs)	<i>Load</i> (MW)	<i>NOx Emissions</i> <i>Mass</i> (lbs)	<i>NOx Emission</i> <i>Rate</i> (lb/MMBtu)	<i>Natural Gas</i> <i>Heat Input</i> (MMBtu)	<i>Oil Heat Input</i> (MMBtu)
Date: 6/18/2014								
Unit:	Sewaren	3	3					
	12:00:00 AM		1.00	0.0	1.0	0.025	0.0	0.0
	1:00:00 AM		0.70	0.0	0.7	0.025	0.0	0.0
	6:00:00 AM		0.75	0.0	1.4	0.029	0.0	0.0
	7:00:00 AM		1.00	8.0	7.7	0.037	0.0	0.0
	8:00:00 AM		1.00	26.0	11.0	0.027	0.0	0.0
	9:00:00 AM		1.00	28.0	9.8	0.024	0.0	0.0
	10:00:00 AM		1.00	28.0	11.8	0.027	0.0	0.0
	11:00:00 AM		1.00	29.0	11.4	0.026	0.0	0.0
	12:00:00 PM		1.00	30.0	21.1	0.046	0.0	0.0
	1:00:00 PM		1.00	31.0	19.9	0.044	0.0	0.0
	2:00:00 PM		1.00	35.0	19.8	0.037	0.0	0.0
	3:00:00 PM		1.00	71.0	52.8	0.048	0.0	0.0
	4:00:00 PM		1.00	84.0	74.6	0.064	0.0	0.0
	5:00:00 PM		1.00	85.0	79.3	0.067	0.0	0.0
	6:00:00 PM		1.00	75.0	86.5	0.084	0.0	0.0
	7:00:00 PM		1.00	37.0	50.7	0.102	0.0	0.0
	8:00:00 PM		1.00	19.0	20.8	0.068	0.0	0.0
	9:00:00 PM		0.83	17.0	15.9	0.063	0.0	0.0
<u>Sewaren</u>	<u>3</u>	<u>Total</u>	17.28	603.0	496.1	0.047	0.0	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time</i> <i>(hrs)</i>	<i>Load</i> <i>(MW)</i>	<i>NOx Emissions</i> <i>Mass</i> <i>(lbs)</i>	<i>NOx Emission</i> <i>Rate</i> <i>(lb/MMBtu)</i>	<i>Natural Gas</i> <i>Heat Input</i> <i>(MMBtu)</i>	<i>Oil Heat Input</i> <i>(MMBtu)</i>
Date: 6/18/2014								
Unit:	Sewaren	4	4					
	12:00:00 AM		1.00	0.0	2.1	0.024	0.0	0.0
	1:00:00 AM		1.00	0.0	4.0	0.034	0.0	0.0
	2:00:00 AM		1.00	0.0	6.1	0.046	0.0	0.0
	3:00:00 AM		1.00	0.0	2.9	0.03	0.0	0.0
	4:00:00 AM		1.00	0.0	2.9	0.03	0.0	0.0
	5:00:00 AM		1.00	0.0	2.9	0.03	0.0	0.0
	6:00:00 AM		1.00	0.0	2.9	0.03	0.0	0.0
	7:00:00 AM		1.00	0.0	6.0	0.05	0.0	0.0
	8:00:00 AM		1.00	17.0	14.0	0.043	0.0	0.0
	9:00:00 AM		1.00	26.0	12.8	0.033	0.0	0.0
	10:00:00 AM		1.00	25.0	11.7	0.031	0.0	0.0
	11:00:00 AM		1.00	26.0	11.7	0.031	0.0	0.0
	12:00:00 PM		1.00	31.0	17.5	0.04	0.0	0.0
	1:00:00 PM		1.00	31.0	21.2	0.048	0.0	0.0
	2:00:00 PM		1.00	53.0	41.0	0.059	0.0	0.0
	3:00:00 PM		1.00	93.0	72.6	0.067	0.0	0.0
	4:00:00 PM		1.00	88.0	67.6	0.067	0.0	0.0
	5:00:00 PM		1.00	88.0	68.2	0.066	0.0	0.0
	6:00:00 PM		1.00	47.0	32.6	0.057	0.0	0.0
	7:00:00 PM		1.00	28.0	23.8	0.061	0.0	0.0
	8:00:00 PM		0.07	13.0	1.3	0.076	0.0	0.0
<u>Sewaren</u>	<u>4</u>	<u>Total</u>	20.07	566.0	425.8	0.045	0.0	0.0
6/18/2014	Total		142.58	4,518.0	9,098.7	0.177	38,087.7	0.0

Date: 7/2/2014

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>(hrs)</i>	<i>Load</i>					
		<i>(MW)</i>					
Date: 7/2/2014							
Unit:	Burlington	121	121				
	11:00:00 AM	0.88	36.0	26.6	0.089	298.3	0.0
	12:00:00 PM	1.00	40.0	29.9	0.082	364.5	0.0
	1:00:00 PM	1.00	40.0	30.8	0.085	362.0	0.0
	2:00:00 PM	1.00	40.0	31.2	0.087	358.4	0.0
	3:00:00 PM	1.00	40.0	31.2	0.087	358.6	0.0
	4:00:00 PM	1.00	40.0	30.7	0.086	357.0	0.0
	5:00:00 PM	1.00	40.0	30.6	0.086	355.3	0.0
	6:00:00 PM	1.00	40.0	31.0	0.087	356.4	0.0
	7:00:00 PM	1.00	42.0	33.0	0.09	366.4	0.0
	8:00:00 PM	0.73	36.0	23.9	0.098	243.6	0.0
<u>Burlington 121</u>	<u>Total</u>	9.61	394.0	298.8	0.088	3,420.5	0.0
Unit:	Burlington	122	122				
	11:00:00 AM	0.88	37.0	29.1	0.084	346.6	0.0
	12:00:00 PM	1.00	41.0	33.3	0.079	421.6	0.0
	1:00:00 PM	1.00	40.0	32.6	0.078	417.7	0.0
	2:00:00 PM	1.00	40.0	32.2	0.078	413.0	0.0
	3:00:00 PM	1.00	40.0	32.3	0.078	414.1	0.0
	4:00:00 PM	1.00	41.0	32.6	0.079	413.1	0.0
	5:00:00 PM	1.00	41.0	32.9	0.08	411.0	0.0
	6:00:00 PM	1.00	41.0	34.0	0.082	414.7	0.0
	7:00:00 PM	1.00	42.0	36.9	0.087	424.5	0.0
	8:00:00 PM	0.73	36.0	26.7	0.096	278.1	0.0
<u>Burlington 122</u>	<u>Total</u>	9.61	399.0	322.6	0.082	3,954.4	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
				<i>Run Time</i>	<i>Load</i>		
				<i>(hrs)</i>	<i>(MW)</i>		
Date: 7/2/2014							
Unit:	Burlington	123	123				
	11:00:00 AM	0.88	36.0	27.7	0.088	318.2	0.0
	12:00:00 PM	1.00	40.0	31.9	0.083	390.9	0.0
	1:00:00 PM	1.00	40.0	31.5	0.083	356.6	0.0
	2:00:00 PM	1.00	39.0	31.9	0.085	358.4	0.0
	3:00:00 PM	1.00	40.0	32.3	0.086	383.9	0.0
	4:00:00 PM	1.00	40.0	32.3	0.086	380.0	0.0
	5:00:00 PM	1.00	40.0	32.2	0.086	375.2	0.0
	6:00:00 PM	1.00	40.0	32.8	0.087	376.1	0.0
	7:00:00 PM	1.00	42.0	35.0	0.09	375.2	0.0
	8:00:00 PM	0.73	36.0	25.5	0.099	273.1	0.0
<u>Burlington 123</u>	<u>Total</u>	9.61	393.0	313.1	0.087	3,587.6	0.0
Unit:	Burlington	124	124				
	11:00:00 AM	0.88	38.0	24.8	0.08	310.4	0.0
	12:00:00 PM	1.00	42.0	27.9	0.074	377.1	0.0
	1:00:00 PM	1.00	42.0	28.1	0.075	374.8	0.0
	2:00:00 PM	1.00	42.0	28.2	0.076	370.7	0.0
	3:00:00 PM	1.00	42.0	28.5	0.077	370.3	0.0
	4:00:00 PM	1.00	42.0	28.5	0.077	369.6	0.0
	5:00:00 PM	1.00	42.0	28.4	0.077	368.2	0.0
	6:00:00 PM	1.00	42.0	28.4	0.077	369.4	0.0
	7:00:00 PM	1.00	43.0	30.0	0.08	374.6	0.0
	8:00:00 PM	0.73	37.0	21.3	0.086	247.7	0.0
<u>Burlington 124</u>	<u>Total</u>	9.61	412.0	274.1	0.078	3,532.8	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>Load</i>						
<i>(hrs)</i>	<i>(MW)</i>						
Date: 7/2/2014							
Unit:	Edison	11 A/B	1001				
	1:00:00 PM	1.00	31.0	326.2	0.7	466.0	0.0
	2:00:00 PM	1.00	32.0	336.7	0.7	481.0	0.0
	3:00:00 PM	1.00	32.0	336.7	0.7	481.0	0.0
	4:00:00 PM	1.00	32.0	336.7	0.7	481.0	0.0
	5:00:00 PM	1.00	33.0	347.2	0.7	496.0	0.0
	6:00:00 PM	1.00	31.0	326.2	0.7	466.0	0.0
Edison	11 A/B	Total	6.00	191.0	2,009.7	0.700	2,871.0
Unit:	Edison	12 A/B	3001				
	1:00:00 PM	1.00	19.0	199.9	0.7	285.6	0.0
	2:00:00 PM	1.00	15.0	157.9	0.7	225.5	0.0
	3:00:00 PM	1.00	15.0	157.9	0.7	225.5	0.0
	4:00:00 PM	1.00	15.0	157.9	0.7	225.5	0.0
	5:00:00 PM	1.00	15.0	157.9	0.7	225.5	0.0
	6:00:00 PM	1.00	14.0	147.3	0.7	210.4	0.0
Edison	12 A/B	Total	6.00	93.0	978.8	0.700	1,398.0
Unit:	Edison	13 A/B	5001				
	2:00:00 PM	1.00	14.0	147.3	0.7	210.4	0.0
	3:00:00 PM	1.00	31.0	326.2	0.7	466.0	0.0
	4:00:00 PM	1.00	31.0	326.2	0.7	466.0	0.0
	5:00:00 PM	1.00	31.0	326.2	0.7	466.0	0.0
	6:00:00 PM	1.00	32.0	336.7	0.7	481.0	0.0
	7:00:00 PM	1.00	13.0	136.8	0.7	195.4	0.0
Edison	13 A/B	Total	6.00	152.0	1,599.4	0.700	2,284.8

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>Load</i>						
<i>(hrs)</i>	<i>(MW)</i>						
Date: 7/2/2014							
Unit:	Edison	14 A/B	7001				
	2:00:00 PM	1.00	16.0	168.4	0.7	240.5	0.0
	3:00:00 PM	1.00	33.0	347.2	0.7	496.0	0.0
	4:00:00 PM	1.00	34.0	357.8	0.7	511.1	0.0
	5:00:00 PM	1.00	34.0	357.8	0.7	511.1	0.0
	6:00:00 PM	1.00	35.0	368.3	0.7	526.1	0.0
	7:00:00 PM	1.00	13.0	136.8	0.7	195.4	0.0
Edison	14 A/B	Total	6.00	165.0	1,736.3	0.700	2,480.2
Unit:	Edison	21 A/B	9001				
	1:00:00 PM	1.00	30.0	315.6	0.7	450.9	0.0
	2:00:00 PM	1.00	32.0	336.7	0.7	481.0	0.0
	3:00:00 PM	1.00	31.0	326.2	0.7	466.0	0.0
	4:00:00 PM	1.00	31.0	326.2	0.7	466.0	0.0
	5:00:00 PM	1.00	31.0	326.2	0.7	466.0	0.0
	6:00:00 PM	1.00	30.0	315.6	0.7	450.9	0.0
Edison	21 A/B	Total	6.00	185.0	1,946.5	0.700	2,780.8
Unit:	Edison	22 A/B	11001				
	2:00:00 PM	1.00	15.0	157.9	0.7	225.5	0.0
	3:00:00 PM	1.00	32.0	336.7	0.7	481.0	0.0
	4:00:00 PM	1.00	32.0	336.7	0.7	481.0	0.0
	5:00:00 PM	1.00	33.0	347.2	0.7	496.0	0.0
	6:00:00 PM	1.00	30.0	315.6	0.7	450.9	0.0
Edison	22 A/B	Total	5.00	142.0	1,494.1	0.700	2,134.4

* Only hours in which a unit operated are listed.

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				NOx Emissions	NOx Emission	Natural Gas	Oil Heat Input	
				Mass	Rate	Heat Input	Heat Input	
				(lbs)	(lb/MMBtu)	(MMBtu)	(MMBtu)	
				Run Time	Load			
				(hrs)	(MW)			
Date: 7/2/2014								
Unit:	Edison	23 A/B	13001					
		2:00:00 PM	1.00	14.0	147.3	0.7	210.4	0.0
		3:00:00 PM	1.00	32.0	336.7	0.7	481.0	0.0
		4:00:00 PM	1.00	33.0	347.2	0.7	496.0	0.0
		5:00:00 PM	1.00	32.0	336.7	0.7	481.0	0.0
		6:00:00 PM	1.00	33.0	347.2	0.7	496.0	0.0
		7:00:00 PM	1.00	13.0	136.8	0.7	195.4	0.0
Edison	23 A/B	Total	6.00	157.0	1,651.9	0.700	2,359.8	0.0
Unit:	Edison	24 A/B	15001					
		1:00:00 PM	1.00	32.0	336.7	0.7	481.0	0.0
		2:00:00 PM	1.00	32.0	336.7	0.7	481.0	0.0
		3:00:00 PM	1.00	32.0	336.7	0.7	481.0	0.0
		4:00:00 PM	1.00	32.0	336.7	0.7	481.0	0.0
		5:00:00 PM	1.00	33.0	347.2	0.7	496.0	0.0
		6:00:00 PM	1.00	33.0	347.2	0.7	496.0	0.0
		7:00:00 PM	1.00	12.0	126.3	0.7	180.4	0.0
Edison	24 A/B	Total	7.00	206.0	2,167.5	0.700	3,096.4	0.0
Unit:	Edison	31 A/B	17001					
		1:00:00 PM	1.00	31.0	326.2	0.7	466.0	0.0
		2:00:00 PM	1.00	31.0	326.2	0.7	466.0	0.0
		3:00:00 PM	1.00	32.0	336.7	0.7	481.0	0.0
		4:00:00 PM	1.00	32.0	336.7	0.7	481.0	0.0
		5:00:00 PM	1.00	32.0	336.7	0.7	481.0	0.0
		6:00:00 PM	1.00	33.0	347.2	0.7	496.0	0.0
		7:00:00 PM	1.00	12.0	126.3	0.7	180.4	0.0
Edison	31 A/B	Total	7.00	203.0	2,136.0	0.700	3,051.4	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
				<i>Run Time</i>	<i>Load</i>		
				<i>(hrs)</i>	<i>(MW)</i>		
Date: 7/2/2014							
Unit:	Edison	32 A/B	19001				
		2:00:00 PM	1.00	15.0	157.9	0.7	225.5
		3:00:00 PM	1.00	31.0	326.2	0.7	466.0
		4:00:00 PM	1.00	32.0	336.7	0.7	481.0
		5:00:00 PM	1.00	32.0	336.7	0.7	481.0
		6:00:00 PM	1.00	30.0	315.6	0.7	450.9
Edison	32 A/B	Total	5.00	140.0	1,473.1	0.700	2,104.4
Unit:	Edison	33 A/B	21001				
		1:00:00 PM	1.00	31.0	326.2	0.7	466.0
		2:00:00 PM	1.00	32.0	336.7	0.7	481.0
		3:00:00 PM	1.00	32.0	336.7	0.7	481.0
		4:00:00 PM	1.00	32.0	336.7	0.7	481.0
		5:00:00 PM	1.00	32.0	336.7	0.7	481.0
		6:00:00 PM	1.00	30.0	315.6	0.7	450.9
Edison	33 A/B	Total	6.00	189.0	1,988.6	0.700	2,840.9
Unit:	Edison	34 A/B	23001				
		2:00:00 PM	1.00	1.0	10.5	0.7	15.0
		3:00:00 PM	1.00	21.0	221.0	0.7	315.7
		4:00:00 PM	1.00	32.0	336.7	0.7	481.0
		5:00:00 PM	1.00	33.0	347.2	0.7	496.0
		6:00:00 PM	1.00	33.0	347.2	0.7	496.0
		7:00:00 PM	1.00	12.0	126.3	0.7	180.4
Edison	34 A/B	Total	6.00	132.0	1,388.9	0.700	1,984.1

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>	
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>		
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>								
<i>(hrs)</i>								
<i>Load</i>								
<i>(MW)</i>								
<i>Date: 7/2/2014</i>								
Unit:	Essex	101 A/B	2001					
		12:00:00 PM	1.00	9.0	98.9	0.7	141.3	0.0
		1:00:00 PM	1.00	30.0	329.6	0.7	470.8	0.0
		2:00:00 PM	1.00	29.0	318.6	0.7	455.1	0.0
		3:00:00 PM	1.00	28.0	307.6	0.7	439.4	0.0
		4:00:00 PM	1.00	29.0	318.6	0.7	455.1	0.0
		5:00:00 PM	1.00	33.0	362.5	0.7	517.9	0.0
		6:00:00 PM	1.00	35.0	384.5	0.7	549.3	0.0
		7:00:00 PM	1.00	29.0	318.6	0.7	455.1	0.0
<u>Essex</u>	<u>101 A/B</u>	<u>Total</u>	8.00	222.0	2,438.9	0.700	3,484.0	0.0
Unit:	Essex	102 A/B	4001					
		12:00:00 PM	1.00	8.0	87.9	0.7	125.6	0.0
		1:00:00 PM	1.00	28.0	307.6	0.7	439.4	0.0
		2:00:00 PM	1.00	26.0	285.7	0.7	408.1	0.0
		3:00:00 PM	1.00	25.0	274.7	0.7	392.4	0.0
		4:00:00 PM	1.00	26.0	285.7	0.7	408.1	0.0
		5:00:00 PM	1.00	31.0	340.6	0.7	486.5	0.0
		6:00:00 PM	1.00	32.0	351.5	0.7	502.2	0.0
		7:00:00 PM	1.00	27.0	296.7	0.7	423.8	0.0
<u>Essex</u>	<u>102 A/B</u>	<u>Total</u>	8.00	203.0	2,230.4	0.700	3,186.1	0.0
Unit:	Essex	103 A/B	10001					
		12:00:00 PM	1.00	9.0	98.9	0.7	141.3	0.0
		1:00:00 PM	1.00	29.0	318.6	0.7	455.1	0.0
		2:00:00 PM	1.00	30.0	329.6	0.7	470.8	0.0
		3:00:00 PM	1.00	30.0	329.6	0.7	470.8	0.0
		4:00:00 PM	1.00	30.0	329.6	0.7	470.8	0.0
		5:00:00 PM	1.00	34.0	373.5	0.7	533.6	0.0
		6:00:00 PM	1.00	36.0	395.5	0.7	565.0	0.0
		7:00:00 PM	1.00	29.0	318.6	0.7	455.1	0.0
<u>Essex</u>	<u>103 A/B</u>	<u>Total</u>	8.00	227.0	2,493.9	0.700	3,562.5	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>Load</i>						
<i>(hrs)</i>	<i>(MW)</i>						
Date: 7/2/2014							
Unit:	Essex	104 A/B	12001				
	12:00:00 PM	1.00	9.0	98.9	0.7	141.3	0.0
	1:00:00 PM	1.00	22.0	241.7	0.7	345.3	0.0
	2:00:00 PM	1.00	9.0	98.9	0.7	141.3	0.0
	3:00:00 PM	1.00	9.0	98.9	0.7	141.3	0.0
	4:00:00 PM	1.00	9.0	98.9	0.7	141.3	0.0
	5:00:00 PM	1.00	14.0	153.8	0.7	219.7	0.0
	6:00:00 PM	1.00	16.0	175.8	0.7	251.1	0.0
	7:00:00 PM	1.00	14.0	153.8	0.7	219.7	0.0
Essex	104 A/B	Total	8.00	102.0	1,120.7	0.700	1,601.0
Unit:	Essex	111 A/B	14001				
	1:00:00 PM	1.00	33.0	362.5	0.7	517.9	0.0
	2:00:00 PM	1.00	35.0	384.5	0.7	549.3	0.0
	3:00:00 PM	1.00	35.0	384.5	0.7	549.3	0.0
	4:00:00 PM	1.00	35.0	384.5	0.7	549.3	0.0
	5:00:00 PM	1.00	13.0	142.8	0.7	204.0	0.0
Essex	111 A/B	Total	5.00	151.0	1,658.8	0.700	2,369.8
Unit:	Essex	112 A/B	16001				
	1:00:00 PM	1.00	31.0	340.6	0.7	486.5	0.0
	2:00:00 PM	1.00	33.0	362.5	0.7	517.9	0.0
	3:00:00 PM	1.00	33.0	362.5	0.7	517.9	0.0
	4:00:00 PM	1.00	34.0	373.5	0.7	533.6	0.0
	5:00:00 PM	1.00	13.0	142.8	0.7	204.0	0.0
Essex	112 A/B	Total	5.00	144.0	1,581.9	0.700	2,259.9

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>(hrs)</i>	<i>Load</i>	<i>(MW)</i>				
Date: 7/2/2014							
Unit:	Essex	113 A/B	18001				
	1:00:00 PM	1.00	31.0	340.6	0.7	486.5	0.0
	2:00:00 PM	1.00	18.0	197.8	0.7	282.5	0.0
	3:00:00 PM	1.00	18.0	197.8	0.7	282.5	0.0
	4:00:00 PM	1.00	18.0	197.8	0.7	282.5	0.0
	5:00:00 PM	1.00	6.0	65.9	0.7	94.2	0.0
Essex	113 A/B	Total	5.00	91.0	0.700	1,428.2	0.0
Unit:	Essex	114 A/B	20001				
	1:00:00 PM	1.00	27.0	296.7	0.7	423.8	0.0
	2:00:00 PM	1.00	28.0	307.6	0.7	439.4	0.0
	3:00:00 PM	1.00	28.0	307.6	0.7	439.4	0.0
	4:00:00 PM	1.00	29.0	318.6	0.7	455.1	0.0
	5:00:00 PM	1.00	11.0	120.8	0.7	172.6	0.0
Essex	114 A/B	Total	5.00	123.0	0.700	1,930.3	0.0
Unit:	Essex	121 A/B	22001				
	1:00:00 PM	1.00	33.0	362.5	0.7	517.9	0.0
	2:00:00 PM	1.00	36.0	395.5	0.7	565.0	0.0
	3:00:00 PM	1.00	36.0	395.5	0.7	565.0	0.0
	4:00:00 PM	1.00	36.0	395.5	0.7	565.0	0.0
	5:00:00 PM	1.00	36.0	395.5	0.7	565.0	0.0
	6:00:00 PM	1.00	36.0	395.5	0.7	565.0	0.0
	7:00:00 PM	1.00	24.0	263.7	0.7	376.7	0.0
Essex	121 A/B	Total	7.00	237.0	0.700	3,719.6	0.0

* Only hours in which a unit operated are listed.

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				NOx Emissions	NOx Emission	Natural Gas	Oil Heat Input	
				Mass	Rate	Heat Input		
				(lbs)	(lb/MMBtu)	(MMBtu)	(MMBtu)	
				Run Time	Load			
				(hrs)	(MW)			
Date: 7/2/2014								
Unit:	Essex	122 A/B	24001					
		1:00:00 PM	1.00	33.0	362.5	0.7	517.9	0.0
		2:00:00 PM	1.00	36.0	395.5	0.7	565.0	0.0
		3:00:00 PM	1.00	36.0	395.5	0.7	565.0	0.0
		4:00:00 PM	1.00	36.0	395.5	0.7	565.0	0.0
		5:00:00 PM	1.00	26.0	285.7	0.7	408.1	0.0
		6:00:00 PM	1.00	37.0	406.5	0.7	580.7	0.0
		7:00:00 PM	1.00	24.0	263.7	0.7	376.7	0.0
Essex	122 A/B	Total	7.00	228.0	2,504.9	0.700	3,578.4	0.0
Unit:	Essex	123 A/B	26001					
		1:00:00 PM	1.00	32.0	351.5	0.7	502.2	0.0
		2:00:00 PM	1.00	36.0	395.5	0.7	565.0	0.0
		3:00:00 PM	1.00	36.0	395.5	0.7	565.0	0.0
		4:00:00 PM	1.00	36.0	395.5	0.7	565.0	0.0
		5:00:00 PM	1.00	36.0	395.5	0.7	565.0	0.0
		6:00:00 PM	1.00	38.0	417.5	0.7	596.4	0.0
		7:00:00 PM	1.00	11.0	120.8	0.7	172.6	0.0
Essex	123 A/B	Total	7.00	225.0	2,471.8	0.700	3,531.2	0.0
Unit:	Essex	9	35001					
		11:00:00 AM	0.53	53.0	25.0	0.083	301.0	0.0
		12:00:00 PM	1.00	74.0	49.0	0.067	730.6	0.0
		1:00:00 PM	1.00	74.0	49.4	0.068	726.5	0.0
		2:00:00 PM	1.00	74.0	49.8	0.069	722.2	0.0
		3:00:00 PM	1.00	73.0	49.7	0.069	719.9	0.0
		4:00:00 PM	1.00	74.0	51.7	0.071	728.5	0.0
		5:00:00 PM	0.57	57.0	23.9	0.072	332.8	0.0
Essex	9	Total	6.10	479.0	298.5	0.071	4,261.5	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>Load</i>						
<i>(hrs)</i>	<i>(MW)</i>						
Date: 7/2/2014							
Unit:	Kearny	121	121				
	10:00:00 AM	0.60	31.0	15.5	0.078	199.0	0.0
	11:00:00 AM	1.00	36.0	25.9	0.07	370.2	0.0
	12:00:00 PM	1.00	37.0	26.5	0.071	373.6	0.0
	1:00:00 PM	1.00	37.0	28.4	0.075	379.3	0.0
	2:00:00 PM	1.00	38.0	28.7	0.075	383.1	0.0
	3:00:00 PM	1.00	38.0	28.2	0.074	381.4	0.0
	4:00:00 PM	1.00	40.0	29.8	0.076	392.0	0.0
	5:00:00 PM	1.00	41.0	28.7	0.072	399.2	0.0
	6:00:00 PM	1.00	41.0	28.1	0.07	402.1	0.0
	7:00:00 PM	1.00	41.0	30.0	0.074	405.9	0.0
	8:00:00 PM	1.00	42.0	30.1	0.074	406.6	0.0
	9:00:00 PM	0.77	36.0	22.8	0.081	281.5	0.0
Kearny	121	Total	11.37	458.0	322.7	4,373.9	0.0
Unit:	Kearny	122	122				
	10:00:00 AM	0.58	38.0	17.4	0.084	207.2	0.0
	11:00:00 AM	1.00	44.0	29.8	0.075	396.8	0.0
	12:00:00 PM	1.00	44.0	31.8	0.08	397.1	0.0
	1:00:00 PM	1.00	44.0	32.7	0.082	398.3	0.0
	2:00:00 PM	1.00	44.0	32.7	0.082	398.5	0.0
	3:00:00 PM	1.00	44.0	31.9	0.08	398.6	0.0
	4:00:00 PM	1.00	44.0	32.9	0.082	400.7	0.0
	5:00:00 PM	1.00	45.0	32.4	0.08	404.5	0.0
	6:00:00 PM	1.00	45.0	31.9	0.079	404.0	0.0
	7:00:00 PM	1.00	45.0	32.8	0.08	409.7	0.0
	8:00:00 PM	1.00	46.0	33.9	0.082	413.3	0.0
	9:00:00 PM	0.77	40.0	26.4	0.092	286.7	0.0
Kearny	122	Total	11.35	523.0	366.6	4,515.3	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>Heat Input</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	<i>(MMBtu)</i>
				<i>Run Time</i>	<i>Load</i>		
				<i>(hrs)</i>	<i>(MW)</i>		
Date: 7/2/2014							
Unit:	Kearny	123	123				
	10:00:00 AM	0.60	36.0	17.8	0.08	222.7	0.0
	11:00:00 AM	1.00	42.0	29.1	0.069	422.0	0.0
	12:00:00 PM	1.00	41.0	30.5	0.074	412.2	0.0
	1:00:00 PM	1.00	40.0	30.2	0.074	407.8	0.0
	2:00:00 PM	1.00	40.0	30.3	0.074	409.2	0.0
	3:00:00 PM	1.00	41.0	30.5	0.074	411.9	0.0
	4:00:00 PM	1.00	42.0	31.6	0.075	420.9	0.0
	5:00:00 PM	1.00	44.0	32.5	0.075	433.9	0.0
	6:00:00 PM	1.00	44.0	32.3	0.074	436.6	0.0
	7:00:00 PM	1.00	44.0	33.2	0.076	437.1	0.0
	8:00:00 PM	1.00	44.0	33.1	0.076	434.9	0.0
	9:00:00 PM	0.82	38.0	27.6	0.086	320.4	0.0
Kearny	123	Total	11.42	496.0	358.7	4,769.6	0.0
Unit:	Kearny	124	124				
	10:00:00 AM	0.58	30.0	17.7	0.094	188.0	0.0
	11:00:00 AM	1.00	37.0	31.1	0.083	374.3	0.0
	12:00:00 PM	1.00	37.0	32.9	0.087	377.7	0.0
	1:00:00 PM	1.00	37.0	33.6	0.089	377.1	0.0
	2:00:00 PM	1.00	35.0	31.4	0.085	369.8	0.0
	3:00:00 PM	1.00	33.0	27.4	0.077	356.2	0.0
	4:00:00 PM	1.00	35.0	27.0	0.074	364.8	0.0
	5:00:00 PM	1.00	37.0	26.3	0.069	380.9	0.0
	6:00:00 PM	1.00	37.0	25.6	0.067	382.6	0.0
	7:00:00 PM	1.00	37.0	26.4	0.069	382.7	0.0
	8:00:00 PM	1.00	37.0	25.9	0.068	381.4	0.0
	9:00:00 PM	0.78	33.0	20.7	0.076	273.1	0.0
Kearny	124	Total	11.36	425.0	326.0	4,208.6	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>Load</i>						
<i>(hrs)</i>	<i>(MW)</i>						
Date: 7/2/2014							
Unit:	Linden	5	5				
	11:00:00 AM	1.00	52.0	43.7	0.056	780.1	0.0
	12:00:00 PM	1.00	74.0	28.5	0.033	863.9	0.0
	1:00:00 PM	1.00	74.0	29.4	0.034	863.9	0.0
	2:00:00 PM	1.00	75.0	31.2	0.036	867.8	0.0
	3:00:00 PM	1.00	75.0	31.3	0.036	870.2	0.0
	4:00:00 PM	1.00	74.0	31.3	0.036	869.4	0.0
	5:00:00 PM	1.00	77.0	34.9	0.039	894.3	0.0
	6:00:00 PM	1.00	78.0	35.2	0.039	903.3	0.0
	7:00:00 PM	1.00	52.0	38.8	0.054	719.4	0.0
<u>Linden</u>	<u>5</u>	<u>Total</u>	9.00	631.0	304.3	7,632.3	0.0
Unit:	Linden	6	6				
	11:00:00 AM	0.92	59.0	36.7	0.052	706.3	0.0
	12:00:00 PM	1.00	74.0	25.7	0.028	917.0	0.0
	1:00:00 PM	1.00	74.0	25.7	0.028	916.8	0.0
	2:00:00 PM	1.00	75.0	26.6	0.029	917.8	0.0
	3:00:00 PM	1.00	75.0	26.6	0.029	917.0	0.0
	4:00:00 PM	1.00	75.0	26.5	0.029	915.3	0.0
	5:00:00 PM	1.00	77.0	29.9	0.032	934.4	0.0
	6:00:00 PM	1.00	78.0	30.2	0.032	944.8	0.0
	7:00:00 PM	0.82	59.0	29.2	0.047	620.9	0.0
<u>Linden</u>	<u>6</u>	<u>Total</u>	8.74	646.0	257.1	7,790.3	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time</i> <i>(hrs)</i>	<i>Load</i> <i>(MW)</i>	<i>NOx Emissions</i> <i>Mass</i> <i>(lbs)</i>	<i>NOx Emission</i> <i>Rate</i> <i>(lb/MMBtu)</i>	<i>Natural Gas</i> <i>Heat Input</i> <i>(MMBtu)</i>	<i>Oil Heat Input</i> <i>(MMBtu)</i>
Date: 7/2/2014								
Unit:	Linden	8	8					
		11:00:00 AM	0.92	52.0	33.2	0.057	582.8	0.0
		12:00:00 PM	1.00	67.0	22.2	0.029	764.8	0.0
		1:00:00 PM	1.00	67.0	22.9	0.03	762.8	0.0
		2:00:00 PM	1.00	67.0	22.9	0.03	764.4	0.0
		3:00:00 PM	1.00	67.0	22.2	0.029	765.3	0.0
		4:00:00 PM	1.00	67.0	22.2	0.029	763.8	0.0
		5:00:00 PM	1.00	69.0	24.0	0.031	775.7	0.0
		6:00:00 PM	1.00	70.0	24.3	0.031	785.4	0.0
		7:00:00 PM	0.72	60.0	23.5	0.047	500.3	0.0
<u>Linden</u>	<u>8</u>	<u>Total</u>	8.64	586.0	217.5	0.035	6,465.3	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time</i> <i>(hrs)</i>	<i>Load</i> <i>(MW)</i>	<i>NOx Emissions</i> <i>Mass</i> <i>(lbs)</i>	<i>NOx Emission</i> <i>Rate</i> <i>(lb/MMBtu)</i>	<i>Natural Gas</i> <i>Heat Input</i> <i>(MMBtu)</i>	<i>Oil Heat Input</i> <i>(MMBtu)</i>
Date: 7/2/2014								
Unit:	Sewaren	1	1					
		5:00:00 AM	0.40	0.0	0.6	0.046	12.2	0.0
		6:00:00 AM	1.00	0.0	3.4	0.046	73.4	0.0
		7:00:00 AM	0.65	0.0	2.1	0.046	46.6	0.0
		8:00:00 AM	1.00	21.0	15.7	0.046	341.6	0.0
		9:00:00 AM	1.00	29.0	19.1	0.049	389.0	0.0
		10:00:00 AM	1.00	44.0	31.6	0.056	564.6	0.0
		11:00:00 AM	1.00	61.0	125.3	0.096	1,305.6	0.0
		12:00:00 PM	1.00	83.0	139.4	0.096	1,452.2	0.0
		1:00:00 PM	1.00	96.0	139.4	0.096	1,452.2	0.0
		2:00:00 PM	1.00	98.0	139.4	0.096	1,452.2	0.0
		3:00:00 PM	1.00	105.0	139.4	0.096	1,452.2	0.0
		4:00:00 PM	1.00	99.0	139.4	0.096	1,452.2	0.0
		5:00:00 PM	1.00	76.0	134.6	0.096	1,402.3	0.0
		6:00:00 PM	1.00	46.0	81.9	0.077	1,063.7	0.0
		7:00:00 PM	1.00	30.0	54.1	0.077	702.4	0.0
		8:00:00 PM	1.00	31.0	54.0	0.077	701.3	0.0
		9:00:00 PM	1.00	22.0	48.9	0.077	635.5	0.0
		10:00:00 PM	1.00	21.0	50.3	0.077	652.6	0.0
		11:00:00 PM	1.00	21.0	50.3	0.077	653.5	0.0
<u>Sewaren</u>	1	<u>Total</u>	18.05	883.0	1,368.9	0.075	15,805.3	0.0

* Only hours in which a unit operated are listed.

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				NOx Emissions	NOx Emission	Natural Gas	Oil Heat Input	
				Mass	Rate	Heat Input		
				(lbs)	(lb/MMBtu)	(MMBtu)	(MMBtu)	
				Run Time	Load			
				(hrs)	(MW)			
Date: 7/2/2014								
Unit:	Sewaren	2	2					
	12:00:00 AM	1.00	23.0	32.4	0.096	337.3	0.0	
	1:00:00 AM	1.00	23.0	32.4	0.096	337.1	0.0	
	2:00:00 AM	1.00	23.0	32.4	0.096	337.2	0.0	
	3:00:00 AM	1.00	23.0	32.4	0.096	337.7	0.0	
	4:00:00 AM	1.00	23.0	32.5	0.096	338.2	0.0	
	5:00:00 AM	1.00	23.0	32.4	0.096	337.6	0.0	
	6:00:00 AM	1.00	23.0	32.6	0.096	339.5	0.0	
	7:00:00 AM	1.00	23.0	32.5	0.096	338.9	0.0	
	8:00:00 AM	1.00	27.0	36.9	0.096	384.1	0.0	
	9:00:00 AM	1.00	32.0	42.6	0.096	443.4	0.0	
	10:00:00 AM	1.00	46.0	52.6	0.096	547.5	0.0	
	11:00:00 AM	1.00	44.0	54.1	0.096	563.4	0.0	
	12:00:00 PM	1.00	48.0	56.0	0.096	583.5	0.0	
	1:00:00 PM	1.00	48.0	56.1	0.096	584.8	0.0	
	2:00:00 PM	1.00	47.0	56.1	0.096	584.6	0.0	
	3:00:00 PM	1.00	48.0	57.4	0.096	597.9	0.0	
	4:00:00 PM	1.00	49.0	57.6	0.096	600.3	0.0	
	5:00:00 PM	1.00	43.0	51.6	0.096	537.9	0.0	
	6:00:00 PM	1.00	36.0	46.1	0.096	480.2	0.0	
	7:00:00 PM	1.00	26.0	36.5	0.096	380.3	0.0	
	8:00:00 PM	1.00	29.0	40.1	0.096	418.2	0.0	
	9:00:00 PM	1.00	22.0	32.1	0.096	334.1	0.0	
	10:00:00 PM	1.00	22.0	32.3	0.096	336.4	0.0	
	11:00:00 PM	1.00	22.0	32.3	0.096	336.6	0.0	
Sewaren	2	Total	24.00	773.0	1,000.0	0.096	10,416.7	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time</i> <i>(hrs)</i>	<i>Load</i> <i>(MW)</i>	<i>NOx Emissions</i> <i>Mass</i> <i>(lbs)</i>	<i>NOx Emission</i> <i>Rate</i> <i>(lb/MMBtu)</i>	<i>Natural Gas</i> <i>Heat Input</i> <i>(MMBtu)</i>	<i>Oil Heat Input</i> <i>(MMBtu)</i>
Date: 7/2/2014								
Unit:	Sewaren	3	3					
	5:00:00 AM		0.65	0.0	0.9	0.027	0.0	0.0
	6:00:00 AM		1.00	3.0	2.9	0.031	0.0	0.0
	7:00:00 AM		1.00	25.0	16.7	0.04	0.0	0.0
	8:00:00 AM		1.00	27.0	18.2	0.042	0.0	0.0
	9:00:00 AM		1.00	27.0	18.1	0.043	0.0	0.0
	10:00:00 AM		1.00	44.0	39.2	0.061	0.0	0.0
	11:00:00 AM		1.00	63.0	71.2	0.082	0.0	0.0
	12:00:00 PM		1.00	96.0	104.3	0.084	0.0	0.0
	1:00:00 PM		1.00	102.0	108.6	0.084	0.0	0.0
	2:00:00 PM		1.00	109.0	90.5	0.067	0.0	0.0
	3:00:00 PM		1.00	107.0	75.2	0.059	0.0	0.0
	4:00:00 PM		1.00	109.0	71.9	0.057	0.0	0.0
	5:00:00 PM		1.00	86.0	75.8	0.076	0.0	0.0
	6:00:00 PM		1.00	36.0	26.4	0.056	0.0	0.0
	7:00:00 PM		1.00	24.0	17.0	0.047	0.0	0.0
	8:00:00 PM		1.00	24.0	16.1	0.046	0.0	0.0
	9:00:00 PM		1.00	24.0	16.1	0.046	0.0	0.0
	10:00:00 PM		1.00	23.0	16.3	0.046	0.0	0.0
	11:00:00 PM		1.00	23.0	16.6	0.047	0.0	0.0
<u>Sewaren</u>	<u>3</u>	<u>Total</u>	18.65	952.0	802.0	0.055	0.0	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time (hrs)</i>	<i>Load (MW)</i>	<i>NOx Emissions Mass (lbs)</i>	<i>NOx Emission Rate (lb/MMBtu)</i>	<i>Natural Gas Heat Input (MMBtu)</i>	<i>Oil Heat Input (MMBtu)</i>
Date: 7/2/2014								
Unit:	Sewaren	4	4					
	5:00:00 AM		0.68	0.0	5.5	0.031	0.0	0.0
	6:00:00 AM		1.00	0.0	1.9	0.028	0.0	0.0
	7:00:00 AM		1.00	0.0	3.5	0.034	0.0	0.0
	8:00:00 AM		1.00	1.0	4.4	0.038	0.0	0.0
	9:00:00 AM		1.00	25.0	16.8	0.043	0.0	0.0
	10:00:00 AM		1.00	77.0	83.3	0.089	0.0	0.0
	11:00:00 AM		1.00	92.0	137.2	0.129	0.0	0.0
	12:00:00 PM		1.00	116.0	151.4	0.113	0.0	0.0
	1:00:00 PM		1.00	118.0	154.7	0.114	0.0	0.0
	2:00:00 PM		1.00	125.0	153.4	0.108	0.0	0.0
	3:00:00 PM		1.00	121.0	115.0	0.084	0.0	0.0
	4:00:00 PM		1.00	118.0	111.7	0.083	0.0	0.0
	5:00:00 PM		1.00	84.0	80.5	0.087	0.0	0.0
	6:00:00 PM		1.00	31.0	22.2	0.054	0.0	0.0
	7:00:00 PM		0.80	24.0	14.6	0.056	0.0	0.0
Sewaren	4	Total	14.48	932.0	1,056.1	0.073	0.0	0.0
7/2/2014	Total		336.60	13,290.0	49,914.1	0.337	144,771.2	0.0

Date: 7/8/2014

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>(hrs)</i>	<i>Load</i>					
		<i>(MW)</i>					
Date: 7/8/2014							
Unit:	Burlington	121	121				
	9:00:00 AM	0.63	35.0	20.2	0.097	208.0	0.0
	10:00:00 AM	1.00	41.0	30.9	0.083	372.2	0.0
	11:00:00 AM	1.00	41.0	30.7	0.083	370.2	0.0
	12:00:00 PM	1.00	41.0	31.4	0.085	369.7	0.0
	1:00:00 PM	1.00	41.0	31.8	0.086	369.6	0.0
	2:00:00 PM	1.00	41.0	31.8	0.086	369.6	0.0
	3:00:00 PM	1.00	41.0	30.8	0.083	370.7	0.0
	4:00:00 PM	1.00	41.0	30.1	0.081	372.1	0.0
	5:00:00 PM	1.00	41.0	29.8	0.08	372.4	0.0
	6:00:00 PM	0.48	32.0	14.6	0.096	151.9	0.0
<u>Burlington 121</u>	<u>Total</u>	9.11	395.0	282.1	0.086	3,326.4	0.0
Unit:	Burlington	122	122				
	9:00:00 AM	0.62	35.0	23.1	0.099	232.9	0.0
	10:00:00 AM	1.00	40.0	32.2	0.078	412.3	0.0
	11:00:00 AM	1.00	42.0	33.0	0.077	428.8	0.0
	12:00:00 PM	1.00	41.0	32.0	0.075	426.8	0.0
	1:00:00 PM	1.00	41.0	32.0	0.075	426.7	0.0
	2:00:00 PM	1.00	41.0	31.9	0.075	425.7	0.0
	3:00:00 PM	1.00	41.0	32.8	0.077	425.7	0.0
	4:00:00 PM	1.00	41.0	32.8	0.077	425.9	0.0
	5:00:00 PM	1.00	41.0	32.9	0.077	427.2	0.0
	6:00:00 PM	0.47	33.0	15.7	0.092	170.8	0.0
<u>Burlington 122</u>	<u>Total</u>	9.09	396.0	298.4	0.080	3,802.8	0.0

* Only hours in which a unit operated are listed.

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				NOx Emissions	NOx Emission	Natural Gas	Oil Heat Input
				Mass	Rate	Heat Input	Heat Input
				(lbs)	(lb/MMBtu)	(MMBtu)	(MMBtu)
				Run Time	Load		
				(hrs)	(MW)		
Date: 7/8/2014							
Unit:	Burlington	123	123				
	9:00:00 AM	0.62	35.0	20.4	0.094	247.0	0.0
	10:00:00 AM	1.00	41.0	32.1	0.082	399.2	0.0
	11:00:00 AM	1.00	40.0	31.9	0.082	345.1	0.0
	12:00:00 PM	1.00	40.0	31.8	0.082	349.9	0.0
	1:00:00 PM	1.00	40.0	31.7	0.082	390.9	0.0
	2:00:00 PM	1.00	40.0	31.3	0.081	389.5	0.0
	3:00:00 PM	1.00	40.0	31.3	0.081	387.4	0.0
	4:00:00 PM	1.00	40.0	30.9	0.08	386.6	0.0
	5:00:00 PM	1.00	40.0	31.4	0.081	386.2	0.0
	6:00:00 PM	0.48	32.0	18.7	0.118	185.4	0.0
<u>Burlington</u>	<u>123</u>	<u>Total</u>	9.10	388.0	291.5	0.086	3,467.2
Unit:	Burlington	124	124				
	9:00:00 AM	0.62	37.0	18.0	0.084	214.2	0.0
	10:00:00 AM	1.00	42.0	28.2	0.074	380.5	0.0
	11:00:00 AM	1.00	42.0	28.7	0.076	378.1	0.0
	12:00:00 PM	1.00	42.0	28.7	0.076	377.7	0.0
	1:00:00 PM	1.00	42.0	28.7	0.076	377.9	0.0
	2:00:00 PM	1.00	42.0	28.7	0.076	377.6	0.0
	3:00:00 PM	1.00	42.0	28.6	0.076	376.7	0.0
	4:00:00 PM	1.00	42.0	28.2	0.075	376.1	0.0
	5:00:00 PM	1.00	42.0	28.2	0.075	376.5	0.0
	6:00:00 PM	0.48	33.0	12.9	0.084	153.6	0.0
<u>Burlington</u>	<u>124</u>	<u>Total</u>	9.10	406.0	258.9	0.077	3,388.9

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>(hrs)</i>	<i>Load</i>	<i>(MW)</i>				
Date: 7/8/2014							
Unit:	Edison	11 A/B	1001				
	2:00:00 PM	1.00	10.0	105.2	0.7	150.3	0.0
	3:00:00 PM	1.00	32.0	336.7	0.7	481.0	0.0
	4:00:00 PM	1.00	32.0	336.7	0.7	481.0	0.0
	5:00:00 PM	1.00	32.0	336.7	0.7	481.0	0.0
	6:00:00 PM	1.00	18.0	189.4	0.7	270.6	0.0
Edison	11 A/B	Total	5.00	124.0	1,304.7	0.700	1,863.9
Unit:	Edison	12 A/B	3001				
	2:00:00 PM	1.00	3.0	31.6	0.7	45.1	0.0
	3:00:00 PM	1.00	14.0	147.3	0.7	210.4	0.0
	4:00:00 PM	1.00	14.0	147.3	0.7	210.4	0.0
	5:00:00 PM	1.00	14.0	147.3	0.7	210.4	0.0
	6:00:00 PM	1.00	8.0	84.1	0.7	120.2	0.0
Edison	12 A/B	Total	5.00	53.0	557.6	0.700	796.5
Unit:	Edison	21 A/B	9001				
	2:00:00 PM	1.00	9.0	94.7	0.7	135.3	0.0
	3:00:00 PM	1.00	31.0	326.2	0.7	466.0	0.0
	4:00:00 PM	1.00	31.0	326.2	0.7	466.0	0.0
	5:00:00 PM	1.00	31.0	326.2	0.7	466.0	0.0
	6:00:00 PM	1.00	18.0	189.4	0.7	270.6	0.0
Edison	21 A/B	Total	5.00	120.0	1,262.7	0.700	1,803.9
Unit:	Edison	22 A/B	11001				
	2:00:00 PM	1.00	9.0	94.7	0.7	135.3	0.0
	3:00:00 PM	1.00	32.0	336.7	0.7	481.0	0.0
	4:00:00 PM	1.00	32.0	336.7	0.7	481.0	0.0
	5:00:00 PM	1.00	32.0	336.7	0.7	481.0	0.0
	6:00:00 PM	1.00	19.0	199.9	0.7	285.6	0.0
Edison	22 A/B	Total	5.00	124.0	1,304.7	0.700	1,863.9

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
				<i>Run Time</i>	<i>Load</i>		
				<i>(hrs)</i>	<i>(MW)</i>		
Date: 7/8/2014							
Unit:	Edison	31 A/B	17001				
		2:00:00 PM	1.00	9.0	94.7	0.7	135.3
		3:00:00 PM	1.00	32.0	336.7	0.7	481.0
		4:00:00 PM	1.00	32.0	336.7	0.7	481.0
		5:00:00 PM	1.00	32.0	336.7	0.7	481.0
		6:00:00 PM	1.00	19.0	199.9	0.7	285.6
Edison	31 A/B	Total	5.00	124.0	1,304.7	0.700	1,863.9
Unit:	Edison	32 A/B	19001				
		2:00:00 PM	1.00	10.0	105.2	0.7	150.3
		3:00:00 PM	1.00	32.0	336.7	0.7	481.0
		4:00:00 PM	1.00	32.0	336.7	0.7	481.0
		5:00:00 PM	1.00	32.0	336.7	0.7	481.0
		6:00:00 PM	1.00	20.0	210.4	0.7	300.6
Edison	32 A/B	Total	5.00	126.0	1,325.7	0.700	1,893.9
Unit:	Essex	101 A/B	2001				
		2:00:00 PM	1.00	13.0	142.8	0.7	204.0
		3:00:00 PM	1.00	31.0	340.6	0.7	486.5
		4:00:00 PM	1.00	32.0	351.5	0.7	502.2
		5:00:00 PM	1.00	31.0	340.6	0.7	486.5
		6:00:00 PM	1.00	17.0	186.8	0.7	266.8
Essex	101 A/B	Total	5.00	124.0	1,362.3	0.700	1,946.0
Unit:	Essex	102 A/B	4001				
		2:00:00 PM	1.00	12.0	131.8	0.7	188.3
		3:00:00 PM	1.00	28.0	307.6	0.7	439.4
		4:00:00 PM	1.00	28.0	307.6	0.7	439.4
		5:00:00 PM	1.00	28.0	307.6	0.7	439.4
		6:00:00 PM	1.00	15.0	164.8	0.7	235.4
Essex	102 A/B	Total	5.00	111.0	1,219.4	0.700	1,741.9

* Only hours in which a unit operated are listed.

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			<i>Run Time (hrs)</i>	<i>Load (MW)</i>	<i>NOx Emissions Mass (lbs)</i>	<i>NOx Emission Rate (lb/MMBtu)</i>	<i>Natural Gas Heat Input (MMBtu)</i>	<i>Oil Heat Input (MMBtu)</i>
Date: 7/8/2014								
Unit:	Essex	103 A/B	10001					
		2:00:00 PM	1.00	14.0	153.8	0.7	219.7	0.0
		3:00:00 PM	1.00	32.0	351.5	0.7	502.2	0.0
		4:00:00 PM	1.00	32.0	351.5	0.7	502.2	0.0
		5:00:00 PM	1.00	32.0	351.5	0.7	502.2	0.0
		6:00:00 PM	1.00	16.0	175.8	0.7	251.1	0.0
Essex	103 A/B	Total	5.00	126.0	1,384.1	0.700	1,977.4	0.0
Unit:	Essex	104 A/B	12001					
		2:00:00 PM	1.00	13.0	142.8	0.7	204.0	0.0
		3:00:00 PM	1.00	33.0	362.5	0.7	517.9	0.0
		4:00:00 PM	1.00	32.0	351.5	0.7	502.2	0.0
		5:00:00 PM	1.00	31.0	340.6	0.7	486.5	0.0
		6:00:00 PM	1.00	16.0	175.8	0.7	251.1	0.0
Essex	104 A/B	Total	5.00	125.0	1,373.2	0.700	1,961.7	0.0
Unit:	Essex	111 A/B	14001					
		5:00:00 PM	1.00	24.0	263.7	0.7	376.7	0.0
		6:00:00 PM	1.00	26.0	285.7	0.7	408.1	0.0
Essex	111 A/B	Total	2.00	50.0	549.4	0.700	784.8	0.0
Unit:	Essex	112 A/B	16001					
		5:00:00 PM	1.00	29.0	318.6	0.7	455.1	0.0
		6:00:00 PM	1.00	26.0	285.7	0.7	408.1	0.0
Essex	112 A/B	Total	2.00	55.0	604.3	0.700	863.2	0.0
Unit:	Essex	113 A/B	18001					
		5:00:00 PM	1.00	15.0	164.8	0.7	235.4	0.0
		6:00:00 PM	1.00	13.0	142.8	0.7	204.0	0.0
Essex	113 A/B	Total	2.00	28.0	307.6	0.700	439.4	0.0
Unit:	Essex	114 A/B	20001					
		5:00:00 PM	1.00	25.0	274.7	0.7	392.4	0.0
		6:00:00 PM	1.00	23.0	252.7	0.7	361.0	0.0
Essex	114 A/B	Total	2.00	48.0	527.4	0.700	753.4	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
		<i>Run Time</i>	<i>Load</i>				
		<i>(hrs)</i>	<i>(MW)</i>				
Date: 7/8/2014							
Unit:	Essex	121 A/B	22001				
		5:00:00 PM	1.00	29.0	318.6	0.7	455.1
		6:00:00 PM	1.00	24.0	263.7	0.7	376.7
Essex	121 A/B	Total	2.00	53.0	582.3	0.700	831.8
Unit:	Essex	122 A/B	24001				
		5:00:00 PM	1.00	21.0	230.7	0.7	329.6
		6:00:00 PM	1.00	26.0	285.7	0.7	408.1
Essex	122 A/B	Total	2.00	47.0	516.4	0.700	737.7
Unit:	Essex	123 A/B	26001				
		5:00:00 PM	1.00	29.0	318.6	0.7	455.1
		6:00:00 PM	1.00	26.0	285.7	0.7	408.1
Essex	123 A/B	Total	2.00	55.0	604.3	0.700	863.2
Unit:	Essex	124 A/B	28001				
		5:00:00 PM	1.00	29.0	318.6	0.7	455.1
		6:00:00 PM	1.00	26.0	285.7	0.7	408.1
Essex	124 A/B	Total	2.00	55.0	604.3	0.700	863.2
Unit:	Essex	9	35001				
		1:00:00 PM	0.73	57.0	33.4	0.077	433.1
		2:00:00 PM	1.00	72.0	55.2	0.078	707.9
		3:00:00 PM	1.00	71.0	53.4	0.076	702.1
		4:00:00 PM	1.00	66.0	51.4	0.077	667.1
		5:00:00 PM	0.55	50.0	22.7	0.077	294.4
Essex	9	Total	4.28	316.0	216.0	0.077	2,804.6

* Only hours in which a unit operated are listed.

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			<i>Run Time</i> <i>(hrs)</i>	<i>Load</i> <i>(MW)</i>	<i>NOx Emissions</i> <i>Mass</i> <i>(lbs)</i>	<i>NOx Emission</i> <i>Rate</i> <i>(lb/MMBtu)</i>	<i>Natural Gas</i> <i>Heat Input</i> <i>(MMBtu)</i>	<i>Oil Heat Input</i> <i>(MMBtu)</i>
Date: 7/8/2014								
Unit:	Kearny	121	121					
		9:00:00 AM	0.67	35.0	24.1	0.1	241.4	0.0
		10:00:00 AM	1.00	39.0	33.9	0.088	384.8	0.0
		11:00:00 AM	1.00	38.0	34.0	0.09	378.1	0.0
		12:00:00 PM	1.00	37.0	33.9	0.091	372.3	0.0
		1:00:00 PM	1.00	37.0	33.6	0.09	373.5	0.0
		2:00:00 PM	1.00	37.0	32.9	0.088	374.1	0.0
		3:00:00 PM	1.00	37.0	32.9	0.088	373.6	0.0
		4:00:00 PM	1.00	38.0	33.7	0.089	379.1	0.0
		5:00:00 PM	1.00	38.0	32.9	0.087	378.6	0.0
		6:00:00 PM	0.50	31.0	16.4	0.099	165.2	0.0
		8:00:00 PM	0.75	36.0	24.2	0.09	268.1	0.0
		9:00:00 PM	1.00	40.0	31.4	0.08	392.3	0.0
		10:00:00 PM	1.00	40.0	32.1	0.082	392.0	0.0
		11:00:00 PM	0.33	27.0	10.8	0.108	99.5	0.0
<u>Kearny</u>	<u>121</u>	<u>Total</u>	12.25	510.0	406.7	0.091	4,572.6	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time</i> <i>(hrs)</i>	<i>Load</i> <i>(MW)</i>	<i>NOx Emissions</i> <i>Mass</i> <i>(lbs)</i>	<i>NOx Emission</i> <i>Rate</i> <i>(lb/MMBtu)</i>	<i>Natural Gas</i> <i>Heat Input</i> <i>(MMBtu)</i>	<i>Oil Heat Input</i> <i>(MMBtu)</i>
<i>Date: 7/8/2014</i>								
Unit:	Kearny	122	122					
	9:00:00 AM		0.67	39.0	21.8	0.088	247.2	0.0
	10:00:00 AM		1.00	44.0	32.5	0.081	401.1	0.0
	11:00:00 AM		1.00	44.0	32.8	0.082	399.6	0.0
	12:00:00 PM		1.00	43.0	32.8	0.083	395.1	0.0
	1:00:00 PM		1.00	43.0	33.1	0.084	393.8	0.0
	2:00:00 PM		1.00	43.0	33.0	0.084	393.1	0.0
	3:00:00 PM		1.00	43.0	33.0	0.084	392.3	0.0
	4:00:00 PM		1.00	43.0	33.1	0.084	394.1	0.0
	5:00:00 PM		1.00	43.0	33.1	0.084	394.6	0.0
	6:00:00 PM		0.50	35.0	16.5	0.097	170.4	0.0
	8:00:00 PM		0.75	39.0	23.3	0.085	273.8	0.0
	9:00:00 PM		1.00	45.0	31.6	0.077	410.3	0.0
	10:00:00 PM		1.00	45.0	35.6	0.087	408.9	0.0
	11:00:00 PM		0.33	31.0	11.6	0.113	102.2	0.0
<u>Kearny</u>	<u>122</u>	<u>Total</u>	12.25	580.0	403.7	0.087	4,776.5	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time</i> <i>(hrs)</i>	<i>Load</i> <i>(MW)</i>	<i>NOx Emissions</i> <i>Mass</i> <i>(lbs)</i>	<i>NOx Emission</i> <i>Rate</i> <i>(lb/MMBtu)</i>	<i>Natural Gas</i> <i>Heat Input</i> <i>(MMBtu)</i>	<i>Oil Heat Input</i> <i>(MMBtu)</i>
Date: 7/8/2014								
Unit:	Kearny	123	123					
	9:00:00 AM	0.67	36.0	20.3	0.08	253.6	0.0	
	10:00:00 AM	1.00	41.0	30.6	0.073	418.9	0.0	
	11:00:00 AM	1.00	42.0	30.5	0.072	424.2	0.0	
	12:00:00 PM	1.00	42.0	31.7	0.075	422.8	0.0	
	1:00:00 PM	1.00	42.0	31.7	0.075	422.9	0.0	
	2:00:00 PM	1.00	42.0	32.2	0.076	423.6	0.0	
	3:00:00 PM	1.00	42.0	31.6	0.075	420.7	0.0	
	4:00:00 PM	1.00	42.0	31.2	0.074	421.3	0.0	
	5:00:00 PM	1.00	41.0	30.0	0.072	417.0	0.0	
	6:00:00 PM	0.50	33.0	15.3	0.086	177.4	0.0	
	8:00:00 PM	0.75	36.0	21.0	0.074	283.9	0.0	
	9:00:00 PM	1.00	41.0	30.1	0.072	418.5	0.0	
	10:00:00 PM	1.00	43.0	30.8	0.072	427.7	0.0	
	11:00:00 PM	0.32	30.0	10.3	0.097	106.2	0.0	
Kearny	123	Total	12.24	553.0	377.3	0.077	5,038.7	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>(hrs)</i>	<i>Load</i>	<i>(MW)</i>				
Date: 7/8/2014							
Unit:	Kearny	124	124				
	9:00:00 AM	0.70	39.0	31.4	0.113	277.7	0.0
	10:00:00 AM	1.00	42.0	49.3	0.117	421.2	0.0
	11:00:00 AM	1.00	42.0	48.6	0.117	415.1	0.0
	12:00:00 PM	1.00	41.0	47.9	0.117	409.0	0.0
	1:00:00 PM	1.00	41.0	47.7	0.117	407.9	0.0
	2:00:00 PM	1.00	40.0	46.0	0.113	406.7	0.0
	3:00:00 PM	1.00	40.0	46.0	0.113	407.0	0.0
	4:00:00 PM	1.00	41.0	33.6	0.082	409.2	0.0
	5:00:00 PM	1.00	41.0	33.0	0.08	412.0	0.0
	6:00:00 PM	0.50	34.0	16.5	0.092	178.6	0.0
	8:00:00 PM	0.78	39.0	23.3	0.076	306.8	0.0
	9:00:00 PM	1.00	45.0	29.2	0.066	442.3	0.0
	10:00:00 PM	1.00	45.0	32.4	0.073	443.5	0.0
	11:00:00 PM	0.33	31.0	11.3	0.102	110.5	0.0
Kearny	124	Total	12.31	561.0	0.098	5,047.4	0.0

* Only hours in which a unit operated are listed.

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				NOx Emissions	NOx Emission	Natural Gas	Oil Heat Input	
				Mass	Rate	Heat Input		
				(lbs)	(lb/MMBtu)	(MMBtu)	(MMBtu)	
				Run Time	Load			
				(hrs)	(MW)			
Date: 7/8/2014								
Unit:	Sewaren	1	1					
	12:00:00 AM	1.00	22.0	21.0	0.05	420.4	0.0	
	1:00:00 AM	1.00	22.0	21.6	0.05	431.2	0.0	
	2:00:00 AM	1.00	22.0	22.2	0.051	435.0	0.0	
	3:00:00 AM	1.00	22.0	22.3	0.051	436.5	0.0	
	4:00:00 AM	1.00	22.0	22.8	0.051	446.9	0.0	
	5:00:00 AM	1.00	21.0	22.6	0.051	442.7	0.0	
	6:00:00 AM	1.00	21.0	21.7	0.05	433.7	0.0	
	7:00:00 AM	1.00	21.0	21.4	0.05	428.1	0.0	
	8:00:00 AM	1.00	22.0	21.3	0.05	425.3	0.0	
	9:00:00 AM	1.00	22.0	21.6	0.05	431.4	0.0	
	10:00:00 AM	1.00	22.0	23.3	0.051	456.4	0.0	
	11:00:00 AM	1.00	22.0	21.7	0.05	433.0	0.0	
	12:00:00 PM	1.00	25.0	26.0	0.053	491.0	0.0	
	1:00:00 PM	1.00	39.0	37.7	0.059	639.7	0.0	
	2:00:00 PM	1.00	68.0	71.3	0.075	951.0	0.0	
	3:00:00 PM	1.00	95.0	87.6	0.071	1,234.4	0.0	
	4:00:00 PM	1.00	101.0	87.9	0.071	1,238.3	0.0	
	5:00:00 PM	1.00	99.0	88.6	0.071	1,248.1	0.0	
	6:00:00 PM	1.00	94.0	84.8	0.072	1,178.1	0.0	
	7:00:00 PM	1.00	93.0	84.6	0.073	1,159.3	0.0	
	8:00:00 PM	1.00	73.0	63.6	0.072	883.1	0.0	
	9:00:00 PM	1.00	31.0	26.1	0.053	492.3	0.0	
	10:00:00 PM	0.97	21.0	17.8	0.048	372.5	0.0	
Sewaren	1	Total	22.97	1,000.0	939.5	0.058	15,108.4	0.0

* Only hours in which a unit operated are listed.

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				NOx Emissions	NOx Emission	Natural Gas	Oil Heat Input	
				Mass	Rate	Heat Input		
				(lbs)	(lb/MMBtu)	(MMBtu)	(MMBtu)	
				Run Time	Load			
				(hrs)	(MW)			
Date: 7/8/2014								
Unit:	Sewaren	2	2					
	12:00:00 AM	1.00	26.0	34.4	0.096	358.1	0.0	
	1:00:00 AM	1.00	26.0	34.4	0.096	358.4	0.0	
	2:00:00 AM	1.00	26.0	34.4	0.096	358.8	0.0	
	3:00:00 AM	1.00	26.0	34.5	0.096	359.1	0.0	
	4:00:00 AM	1.00	26.0	34.4	0.096	358.3	0.0	
	5:00:00 AM	1.00	26.0	34.3	0.096	357.1	0.0	
	6:00:00 AM	1.00	26.0	34.2	0.096	356.5	0.0	
	7:00:00 AM	1.00	26.0	34.0	0.096	354.4	0.0	
	8:00:00 AM	1.00	26.0	33.9	0.096	353.1	0.0	
	9:00:00 AM	1.00	25.0	32.0	0.096	333.6	0.0	
	10:00:00 AM	1.00	24.0	32.0	0.096	333.0	0.0	
	11:00:00 AM	1.00	24.0	32.1	0.096	334.2	0.0	
	12:00:00 PM	1.00	26.0	33.7	0.096	350.9	0.0	
	1:00:00 PM	1.00	45.0	53.0	0.096	552.3	0.0	
	2:00:00 PM	1.00	78.0	82.7	0.096	861.7	0.0	
	3:00:00 PM	1.00	109.0	110.1	0.096	1,146.9	0.0	
	4:00:00 PM	1.00	121.0	121.9	0.096	1,270.0	0.0	
	5:00:00 PM	1.00	118.0	117.9	0.096	1,228.0	0.0	
	6:00:00 PM	1.00	117.0	115.0	0.096	1,197.9	0.0	
	7:00:00 PM	1.00	107.0	104.6	0.096	1,089.9	0.0	
	8:00:00 PM	1.00	73.0	75.6	0.096	787.0	0.0	
	9:00:00 PM	1.00	26.0	31.7	0.096	330.4	0.0	
	10:00:00 PM	1.00	28.0	34.5	0.096	359.0	0.0	
	11:00:00 PM	0.53	17.0	13.8	0.096	143.6	0.0	
Sewaren	2	Total	23.53	1,172.0	1,299.1	0.096	13,532.2	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time</i> <i>(hrs)</i>	<i>Load</i> <i>(MW)</i>	<i>NOx Emissions</i> <i>Mass</i> <i>(lbs)</i>	<i>NOx Emission</i> <i>Rate</i> <i>(lb/MMBtu)</i>	<i>Natural Gas</i> <i>Heat Input</i> <i>(MMBtu)</i>	<i>Oil Heat Input</i> <i>(MMBtu)</i>
Date: 7/8/2014								
Unit:	Sewaren	3	3					
		4:00:00 AM	0.20	0.0	0.0	0.006	0.0	0.0
		5:00:00 AM	1.00	0.0	0.2	0.011	0.0	0.0
		6:00:00 AM	1.00	0.0	0.5	0.015	0.0	0.0
		7:00:00 AM	1.00	0.0	1.6	0.027	0.0	0.0
		8:00:00 AM	1.00	0.0	2.2	0.033	0.0	0.0
		9:00:00 AM	1.00	0.0	2.5	0.037	0.0	0.0
		10:00:00 AM	1.00	10.0	8.2	0.041	0.0	0.0
		11:00:00 AM	1.00	27.0	19.2	0.041	0.0	0.0
		12:00:00 PM	1.00	25.0	14.9	0.037	0.0	0.0
		1:00:00 PM	1.00	40.0	42.4	0.068	0.0	0.0
		2:00:00 PM	0.63	40.0	20.9	0.07	0.0	0.0
<u>Sewaren</u>	<u>3</u>	<u>Total</u>	9.83	142.0	112.6	0.035	0.0	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
				<i>(hrs)</i>	<i>(MW)</i>		
Date: 7/8/2014							
Unit:	Sewaren	4	4				
	4:00:00 AM	0.48	1.0	0.7	0.027	0.0	0.0
	5:00:00 AM	1.00	1.0	3.5	0.042	0.0	0.0
	6:00:00 AM	1.00	1.0	3.4	0.042	0.0	0.0
	7:00:00 AM	1.00	6.0	8.6	0.048	0.0	0.0
	8:00:00 AM	1.00	24.0	18.4	0.051	0.0	0.0
	9:00:00 AM	1.00	23.0	16.2	0.043	0.0	0.0
	10:00:00 AM	1.00	23.0	49.5	0.081	0.0	0.0
	11:00:00 AM	1.00	24.0	50.4	0.081	0.0	0.0
	12:00:00 PM	1.00	26.0	53.4	0.081	0.0	0.0
	1:00:00 PM	1.00	32.0	62.7	0.082	0.0	0.0
	2:00:00 PM	1.00	31.0	57.8	0.082	0.0	0.0
	3:00:00 PM	1.00	40.0	71.0	0.083	0.0	0.0
	4:00:00 PM	1.00	72.0	165.7	0.13	0.0	0.0
	5:00:00 PM	1.00	105.0	206.0	0.133	0.0	0.0
	6:00:00 PM	1.00	110.0	203.5	0.133	0.0	0.0
	7:00:00 PM	1.00	108.0	200.0	0.133	0.0	0.0
	8:00:00 PM	0.53	43.0	38.3	0.083	0.0	0.0
<u>Sewaren</u>	<u>4</u>	<u>Total</u>	16.01	670.0	1,209.1	0.080	0.0
<u>7/8/2014</u>	<u>Total</u>	228.07	8,637.0	23,286.0	0.249	88,715.2	0.0
Date: 7/23/2014							
Unit:	Burlington	121	121				
	12:00:00 PM	0.97	37.0	29.5	0.089	331.7	0.0
	1:00:00 PM	1.00	40.0	31.4	0.085	369.1	0.0
	2:00:00 PM	1.00	40.0	31.3	0.085	368.1	0.0
	3:00:00 PM	1.00	40.0	31.6	0.086	367.6	0.0
	4:00:00 PM	1.00	40.0	32.0	0.087	367.9	0.0
	5:00:00 PM	1.00	40.0	32.1	0.087	368.8	0.0
	6:00:00 PM	0.13	13.0	3.4	0.144	23.7	0.0
<u>Burlington</u>	<u>121</u>	<u>Total</u>	6.10	250.0	191.3	2,196.9	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
				<i>Run Time</i>	<i>Load</i>		
				<i>(hrs)</i>	<i>(MW)</i>		
Date: 7/23/2014							
Unit:	Burlington	122	122				
	12:00:00 PM	0.95	38.0	31.6	0.083	381.2	0.0
	1:00:00 PM	1.00	41.0	33.7	0.079	427.0	0.0
	2:00:00 PM	1.00	41.0	33.6	0.079	425.0	0.0
	3:00:00 PM	1.00	41.0	33.5	0.079	424.1	0.0
	4:00:00 PM	1.00	41.0	33.6	0.079	425.1	0.0
	5:00:00 PM	1.00	41.0	33.8	0.079	427.4	0.0
	6:00:00 PM	0.13	9.0	3.7	0.152	24.0	0.0
<u>Burlington 122</u>	<u>Total</u>	6.08	252.0	203.5	0.090	2,533.8	0.0
Unit:	Burlington	123	123				
	12:00:00 PM	0.95	37.0	30.0	0.086	378.3	0.0
	1:00:00 PM	1.00	40.0	31.1	0.08	400.3	0.0
	2:00:00 PM	1.00	40.0	30.6	0.079	365.8	0.0
	3:00:00 PM	1.00	40.0	30.9	0.08	367.8	0.0
	4:00:00 PM	1.00	40.0	30.9	0.08	389.2	0.0
	5:00:00 PM	1.00	40.0	31.1	0.08	387.3	0.0
	6:00:00 PM	0.15	12.0	4.1	0.151	58.0	0.0
<u>Burlington 123</u>	<u>Total</u>	6.10	249.0	188.7	0.091	2,346.7	0.0
Unit:	Burlington	124	124				
	12:00:00 PM	0.97	38.0	29.1	0.085	342.8	0.0
	1:00:00 PM	1.00	42.0	28.8	0.076	378.4	0.0
	2:00:00 PM	1.00	41.0	28.6	0.076	376.7	0.0
	3:00:00 PM	1.00	41.0	28.2	0.075	376.6	0.0
	4:00:00 PM	1.00	41.0	28.2	0.075	376.4	0.0
	5:00:00 PM	1.00	41.0	28.7	0.076	378.0	0.0
	6:00:00 PM	0.15	12.0	3.5	0.131	26.6	0.0
<u>Burlington 124</u>	<u>Total</u>	6.12	256.0	175.1	0.085	2,255.5	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
				<i>Load</i>			
				<i>(MW)</i>			
				<i>Run Time</i>			
				<i>(hrs)</i>			
Date: 7/23/2014							
Unit:	Edison	11 A/B	1001				
	3:00:00 PM	1.00	15.0	157.9	0.7	225.5	0.0
	4:00:00 PM	1.00	34.0	357.8	0.7	511.1	0.0
	5:00:00 PM	1.00	26.0	273.6	0.7	390.8	0.0
Edison	11 A/B	Total	3.00	75.0	789.3	0.700	1,127.4
Unit:	Edison	12 A/B	3001				
	3:00:00 PM	1.00	15.0	157.9	0.7	225.5	0.0
	4:00:00 PM	1.00	36.0	378.8	0.7	541.1	0.0
	5:00:00 PM	1.00	27.0	284.1	0.7	405.8	0.0
Edison	12 A/B	Total	3.00	78.0	820.8	0.700	1,172.4
Unit:	Edison	21 A/B	9001				
	3:00:00 PM	1.00	14.0	147.3	0.7	210.4	0.0
	4:00:00 PM	1.00	34.0	357.8	0.7	511.1	0.0
	5:00:00 PM	1.00	33.0	347.2	0.7	496.0	0.0
	6:00:00 PM	1.00	13.0	136.8	0.7	195.4	0.0
Edison	21 A/B	Total	4.00	94.0	989.1	0.700	1,412.9
Unit:	Edison	22 A/B	11001				
	3:00:00 PM	1.00	14.0	147.3	0.7	210.4	0.0
	4:00:00 PM	1.00	35.0	368.3	0.7	526.1	0.0
	5:00:00 PM	1.00	34.0	357.8	0.7	511.1	0.0
	6:00:00 PM	1.00	13.0	136.8	0.7	195.4	0.0
Edison	22 A/B	Total	4.00	96.0	1,010.2	0.700	1,443.0
Unit:	Edison	31 A/B	17001				
	3:00:00 PM	1.00	13.0	136.8	0.7	195.4	0.0
	4:00:00 PM	1.00	33.0	347.2	0.7	496.0	0.0
	5:00:00 PM	1.00	33.0	347.2	0.7	496.0	0.0
	6:00:00 PM	1.00	34.0	357.8	0.7	511.1	0.0
Edison	31 A/B	Total	4.00	113.0	1,189.0	0.700	1,698.5

* Only hours in which a unit operated are listed.

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			<i>Run Time (hrs)</i>	<i>Load (MW)</i>	<i>NOx Emissions Mass (lbs)</i>	<i>NOx Emission Rate (lb/MMBtu)</i>	<i>Natural Gas Heat Input (MMBtu)</i>	<i>Oil Heat Input (MMBtu)</i>
Date: 7/23/2014								
Unit:	Edison	32 A/B	19001					
		3:00:00 PM	1.00	14.0	147.3	0.7	210.4	0.0
		4:00:00 PM	1.00	34.0	357.8	0.7	511.1	0.0
		5:00:00 PM	1.00	33.0	347.2	0.7	496.0	0.0
		6:00:00 PM	1.00	33.0	347.2	0.7	496.0	0.0
		7:00:00 PM	1.00	2.0	21.1	0.7	30.1	0.0
Edison	32 A/B	Total	5.00	116.0	1,220.6	0.700	1,743.6	0.0
Unit:	Essex	101 A/B	2001					
		3:00:00 PM	1.00	11.0	120.8	0.7	172.6	0.0
		4:00:00 PM	1.00	32.0	351.5	0.7	502.2	0.0
		5:00:00 PM	1.00	33.0	362.5	0.7	517.9	0.0
		6:00:00 PM	1.00	19.0	208.7	0.7	298.2	0.0
Essex	101 A/B	Total	4.00	95.0	1,043.5	0.700	1,490.9	0.0
Unit:	Essex	102 A/B	4001					
		3:00:00 PM	1.00	11.0	120.8	0.7	172.6	0.0
		4:00:00 PM	1.00	29.0	318.6	0.7	455.1	0.0
		5:00:00 PM	1.00	29.0	318.6	0.7	455.1	0.0
		6:00:00 PM	1.00	17.0	186.8	0.7	266.8	0.0
Essex	102 A/B	Total	4.00	86.0	944.8	0.700	1,349.6	0.0
Unit:	Essex	103 A/B	10001					
		3:00:00 PM	1.00	13.0	142.8	0.7	204.0	0.0
		4:00:00 PM	1.00	31.0	340.6	0.7	486.5	0.0
		5:00:00 PM	1.00	32.0	351.5	0.7	502.2	0.0
		6:00:00 PM	1.00	18.0	197.8	0.7	282.5	0.0
Essex	103 A/B	Total	4.00	94.0	1,032.7	0.700	1,475.2	0.0
Unit:	Essex	104 A/B	12001					
		3:00:00 PM	1.00	12.0	131.8	0.7	188.3	0.0
		4:00:00 PM	1.00	31.0	340.6	0.7	486.5	0.0
		5:00:00 PM	1.00	18.0	197.8	0.7	282.5	0.0
Essex	104 A/B	Total	3.00	61.0	670.2	0.700	957.3	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
	<i>Run Time</i>	<i>Load</i>					
	<i>(hrs)</i>	<i>(MW)</i>					
Date: 7/23/2014							
Unit:	Essex	111 A/B	14001				
	3:00:00 PM	1.00	2.0	22.0	0.7	31.4	0.0
	4:00:00 PM	1.00	28.0	307.6	0.7	439.4	0.0
	5:00:00 PM	1.00	22.0	241.7	0.7	345.3	0.0
Essex	111 A/B Total	3.00	52.0	571.3	0.700	816.1	0.0
Unit:	Essex	112 A/B	16001				
	3:00:00 PM	1.00	2.0	22.0	0.7	31.4	0.0
	4:00:00 PM	1.00	22.0	241.7	0.7	345.3	0.0
	5:00:00 PM	1.00	21.0	230.7	0.7	329.6	0.0
Essex	112 A/B Total	3.00	45.0	494.4	0.700	706.3	0.0
Unit:	Essex	113 A/B	18001				
	3:00:00 PM	1.00	5.0	55.0	0.7	78.5	0.0
	4:00:00 PM	1.00	35.0	384.5	0.7	549.3	0.0
	5:00:00 PM	1.00	22.0	241.7	0.7	345.3	0.0
Essex	113 A/B Total	3.00	62.0	681.2	0.700	973.1	0.0
Unit:	Essex	114 A/B	20001				
	3:00:00 PM	1.00	3.0	33.0	0.7	47.1	0.0
	4:00:00 PM	1.00	30.0	329.6	0.7	470.8	0.0
	5:00:00 PM	1.00	18.0	197.8	0.7	282.5	0.0
Essex	114 A/B Total	3.00	51.0	560.4	0.700	800.4	0.0
Unit:	Essex	121 A/B	22001				
	3:00:00 PM	1.00	12.0	131.8	0.7	188.3	0.0
	4:00:00 PM	1.00	35.0	384.5	0.7	549.3	0.0
	5:00:00 PM	1.00	35.0	384.5	0.7	549.3	0.0
	6:00:00 PM	1.00	20.0	219.7	0.7	313.9	0.0
Essex	121 A/B Total	4.00	102.0	1,120.5	0.700	1,600.8	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
	<i>Run Time</i>	<i>Load</i>					
	<i>(hrs)</i>	<i>(MW)</i>					
Date: 7/23/2014							
Unit:	Essex	122 A/B	24001				
	3:00:00 PM	1.00	12.0	131.8	0.7	188.3	0.0
	4:00:00 PM	1.00	36.0	395.5	0.7	565.0	0.0
	5:00:00 PM	1.00	36.0	395.5	0.7	565.0	0.0
	6:00:00 PM	1.00	15.0	164.8	0.7	235.4	0.0
Essex	122 A/B	Total	4.00	99.0	1,087.6	0.700	1,553.7
Unit:	Essex	123 A/B	26001				
	3:00:00 PM	1.00	12.0	131.8	0.7	188.3	0.0
	4:00:00 PM	1.00	34.0	373.5	0.7	533.6	0.0
	5:00:00 PM	1.00	32.0	351.5	0.7	502.2	0.0
	6:00:00 PM	1.00	11.0	120.8	0.7	172.6	0.0
Essex	123 A/B	Total	4.00	89.0	977.6	0.700	1,396.7
Unit:	Essex	124 A/B	28001				
	3:00:00 PM	1.00	8.0	87.9	0.7	125.6	0.0
	4:00:00 PM	1.00	35.0	384.5	0.7	549.3	0.0
	5:00:00 PM	1.00	33.0	362.5	0.7	517.9	0.0
	6:00:00 PM	1.00	6.0	65.9	0.7	94.2	0.0
Essex	124 A/B	Total	4.00	82.0	900.8	0.700	1,287.0
Unit:	Kearny	121	121				
	11:00:00 AM	0.22	26.0	7.9	0.124	63.6	0.0
	12:00:00 PM	1.00	40.0	32.7	0.082	398.3	0.0
	1:00:00 PM	1.00	40.0	32.1	0.081	396.3	0.0
	2:00:00 PM	1.00	40.0	31.8	0.08	397.0	0.0
	3:00:00 PM	1.00	40.0	31.7	0.08	396.3	0.0
	4:00:00 PM	1.00	40.0	31.8	0.08	398.0	0.0
	5:00:00 PM	1.00	40.0	32.1	0.081	396.2	0.0
	6:00:00 PM	0.22	22.0	7.1	0.12	58.9	0.0
Kearny	121	Total	6.44	288.0	207.1	0.091	2,504.6

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
				<i>Run Time</i>	<i>Load</i>		
				<i>(hrs)</i>	<i>(MW)</i>		
Date: 7/23/2014							
Unit:	Kearny	122	122				
	11:00:00 AM	0.22	28.0	6.5	0.104	62.8	0.0
	12:00:00 PM	1.00	45.0	31.0	0.076	407.3	0.0
	1:00:00 PM	1.00	45.0	30.6	0.075	407.5	0.0
	2:00:00 PM	1.00	45.0	30.2	0.074	408.7	0.0
	3:00:00 PM	1.00	45.0	30.3	0.074	408.9	0.0
	4:00:00 PM	1.00	45.0	30.2	0.074	408.4	0.0
	5:00:00 PM	1.00	45.0	30.3	0.074	408.8	0.0
	6:00:00 PM	0.22	24.0	6.4	0.109	59.1	0.0
Kearny	122	Total	6.44	322.0	195.6	0.083	2,571.6
Unit:	Kearny	123	123				
	11:00:00 AM	0.22	26.0	6.4	0.098	65.1	0.0
	12:00:00 PM	1.00	41.0	27.1	0.066	411.3	0.0
	1:00:00 PM	1.00	41.0	27.1	0.066	411.1	0.0
	2:00:00 PM	1.00	40.0	26.6	0.065	409.0	0.0
	3:00:00 PM	1.00	40.0	26.5	0.065	407.7	0.0
	4:00:00 PM	1.00	40.0	26.2	0.064	409.6	0.0
	5:00:00 PM	1.00	40.0	26.5	0.065	407.7	0.0
	6:00:00 PM	0.22	20.0	6.9	0.12	57.3	0.0
Kearny	123	Total	6.44	288.0	173.2	0.076	2,578.8
Unit:	Kearny	124	124				
	11:00:00 AM	0.22	28.0	7.0	0.101	68.9	0.0
	12:00:00 PM	1.00	44.0	30.6	0.071	431.6	0.0
	1:00:00 PM	1.00	44.0	30.9	0.072	429.5	0.0
	2:00:00 PM	1.00	43.0	30.4	0.071	428.6	0.0
	3:00:00 PM	1.00	43.0	30.8	0.072	427.3	0.0
	4:00:00 PM	1.00	43.0	30.5	0.071	429.2	0.0
	5:00:00 PM	1.00	43.0	30.8	0.072	428.1	0.0
	6:00:00 PM	0.22	23.0	7.4	0.121	61.4	0.0
Kearny	124	Total	6.44	311.0	198.4	0.081	2,704.6

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>Load</i>						
<i>(hrs)</i>	<i>(MW)</i>						
Date: 7/23/2014							
Unit:	Linden	6	6				
	11:00:00 AM	0.13	2.0	1.9	0.081	23.2	0.0
	12:00:00 PM	1.00	71.0	41.9	0.048	872.8	0.0
	1:00:00 PM	1.00	75.0	28.5	0.031	918.5	0.0
	2:00:00 PM	1.00	75.0	28.6	0.031	922.5	0.0
	3:00:00 PM	1.00	75.0	28.6	0.031	922.5	0.0
	4:00:00 PM	1.00	68.0	35.9	0.042	853.8	0.0
	5:00:00 PM	0.08	1.0	0.8	0.09	8.5	0.0
<u>Linden</u>	<u>6</u>	<u>Total</u>	5.21	367.0	166.2	4,521.8	0.0
Unit:	Linden	7	7				
	11:00:00 AM	0.15	0.0	2.5	0.093	26.7	0.0
	12:00:00 PM	1.00	66.0	45.4	0.053	856.4	0.0
	1:00:00 PM	1.00	71.0	29.8	0.033	903.7	0.0
	2:00:00 PM	1.00	71.0	30.3	0.033	916.9	0.0
	3:00:00 PM	1.00	71.0	30.1	0.033	912.6	0.0
	4:00:00 PM	1.00	71.0	30.0	0.033	910.4	0.0
	5:00:00 PM	0.42	50.0	21.0	0.072	291.9	0.0
<u>Linden</u>	<u>7</u>	<u>Total</u>	5.57	400.0	189.1	4,818.7	0.0
Unit:	Linden	8	8				
	11:00:00 AM	0.13	0.0	2.0	0.094	20.9	0.0
	12:00:00 PM	1.00	64.0	36.4	0.05	727.2	0.0
	1:00:00 PM	1.00	69.0	23.8	0.031	766.3	0.0
	2:00:00 PM	1.00	69.0	24.3	0.031	783.4	0.0
	3:00:00 PM	1.00	68.0	24.1	0.031	777.3	0.0
	4:00:00 PM	1.00	68.0	24.0	0.031	772.8	0.0
	5:00:00 PM	1.00	66.0	28.6	0.038	751.8	0.0
	6:00:00 PM	0.08	9.0	3.6	0.179	20.2	0.0
<u>Linden</u>	<u>8</u>	<u>Total</u>	6.21	413.0	166.8	4,619.9	0.0
<u>7/23/2014</u>	<u>Total</u>		133.15	4,886.0	18,159.0	56,657.8	0.0

Date: 9/2/2014

*** Only hours in which a unit operated are listed.**

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
<i>Run Time</i>	<i>(hrs)</i>	<i>Load</i>	<i>(MW)</i>				
Date: 9/2/2014							
Unit: Burlington 121	121						
2:00:00 PM	0.02	0.0	0.0	0.01	1.4	0.0	
3:00:00 PM	1.00	39.0	33.3	0.092	361.5	0.0	
4:00:00 PM	1.00	42.0	31.8	0.083	382.9	0.0	
5:00:00 PM	0.93	37.0	29.9	0.092	325.1	0.0	
<u>Burlington 121</u>	<u>Total</u>	2.95	118.0	95.1	0.069	1,070.9	0.0
Unit: Burlington 122	122						
2:00:00 PM	0.02	0.0	0.1	0.054	1.6	0.0	
3:00:00 PM	1.00	38.0	35.1	0.086	408.1	0.0	
4:00:00 PM	1.00	41.0	33.3	0.077	432.1	0.0	
5:00:00 PM	0.92	37.0	30.7	0.084	365.8	0.0	
<u>Burlington 122</u>	<u>Total</u>	2.94	116.0	99.2	0.075	1,207.6	0.0
Unit: Burlington 123	123						
2:00:00 PM	0.02	0.0	0.0	0.018	8.0	0.0	
3:00:00 PM	1.00	38.0	33.9	0.091	399.9	0.0	
4:00:00 PM	1.00	41.0	32.3	0.082	324.3	0.0	
5:00:00 PM	0.92	36.0	30.0	0.09	53.2	0.0	
<u>Burlington 123</u>	<u>Total</u>	2.94	115.0	96.2	0.070	785.4	0.0
Unit: Burlington 124	124						
2:00:00 PM	0.02	0.0	0.1	0.042	1.3	0.0	
3:00:00 PM	1.00	39.0	33.4	0.093	359.5	0.0	
4:00:00 PM	1.00	41.0	31.1	0.082	379.0	0.0	
5:00:00 PM	0.93	37.0	28.6	0.089	321.7	0.0	
<u>Burlington 124</u>	<u>Total</u>	2.95	117.0	93.2	0.077	1,061.5	0.0
Unit: Essex 9	35001						
3:00:00 PM	0.77	58.0	40.6	0.086	472.2	0.0	
4:00:00 PM	1.00	71.0	56.8	0.08	709.7	0.0	
5:00:00 PM	0.65	55.0	30.1	0.08	376.0	0.0	
<u>Essex 9</u>	<u>Total</u>	2.42	184.0	127.5	0.082	1,557.9	0.0

* Only hours in which a unit operated are listed.

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				<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
				<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>(MMBtu)</i>
				<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	
				<i>Run Time</i>	<i>Load</i>		
				<i>(hrs)</i>	<i>(MW)</i>		
Date: 9/2/2014							
Unit:	Kearny	121	121				
	5:00:00 AM	0.78	39.0	27.4	0.092	297.2	0.0
	6:00:00 AM	0.58	35.0	20.1	0.097	207.2	0.0
	2:00:00 PM	0.35	32.0	12.8	0.111	115.2	0.0
	3:00:00 PM	1.00	44.0	34.2	0.082	417.1	0.0
	4:00:00 PM	1.00	44.0	34.3	0.082	418.4	0.0
	5:00:00 PM	1.00	44.0	34.4	0.082	419.2	0.0
	6:00:00 PM	1.00	44.0	34.1	0.081	421.1	0.0
	7:00:00 PM	0.48	34.0	16.4	0.097	168.9	0.0
Kearny	121	Total	6.19	316.0	213.6	0.091	2,464.3
Unit:	Kearny	122	122				
	5:00:00 AM	0.78	41.0	24.3	0.082	295.8	0.0
	6:00:00 AM	0.60	37.0	18.7	0.088	212.4	0.0
	2:00:00 PM	0.35	32.0	11.1	0.1	111.3	0.0
	3:00:00 PM	1.00	45.0	30.6	0.075	407.7	0.0
	4:00:00 PM	1.00	45.0	30.8	0.075	410.1	0.0
	5:00:00 PM	1.00	45.0	30.8	0.075	410.4	0.0
	6:00:00 PM	1.00	45.0	30.8	0.075	411.0	0.0
	7:00:00 PM	0.48	36.0	14.7	0.088	167.5	0.0
Kearny	122	Total	6.21	326.0	191.8	0.082	2,426.2
Unit:	Kearny	123	123				
	5:00:00 AM	0.78	38.0	22.5	0.074	303.9	0.0
	6:00:00 AM	0.58	35.0	17.2	0.08	214.9	0.0
	2:00:00 PM	0.35	30.0	10.3	0.089	115.3	0.0
	3:00:00 PM	1.00	42.0	27.5	0.065	423.3	0.0
	4:00:00 PM	1.00	42.0	28.1	0.066	425.0	0.0
	5:00:00 PM	1.00	42.0	28.1	0.066	425.5	0.0
	6:00:00 PM	0.83	37.0	24.2	0.075	322.3	0.0
Kearny	123	Total	5.54	266.0	157.7	0.074	2,230.2

* Only hours in which a unit operated are listed.

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			<i>Run Time</i> <i>(hrs)</i>	<i>Load</i> <i>(MW)</i>	<i>NOx Emissions</i> <i>Mass</i> <i>(lbs)</i>	<i>NOx Emission</i> <i>Rate</i> <i>(lb/MMBtu)</i>	<i>Natural Gas</i> <i>Heat Input</i> <i>(MMBtu)</i>	<i>Oil Heat Input</i> <i>(MMBtu)</i>
<i>Date: 9/2/2014</i>								
Unit:	Kearny	124	124					
	5:00:00 AM		0.78	40.0	25.0	0.079	316.4	0.0
	6:00:00 AM		0.60	37.0	19.7	0.085	232.5	0.0
	2:00:00 PM		0.35	31.0	11.5	0.098	117.0	0.0
	3:00:00 PM		1.00	43.0	30.4	0.072	422.8	0.0
	4:00:00 PM		1.00	43.0	30.5	0.072	424.0	0.0
	5:00:00 PM		1.00	43.0	30.2	0.071	425.4	0.0
	6:00:00 PM		0.83	38.0	26.0	0.08	324.5	0.0
<u>Kearny</u>	<u>124</u>	<u>Total</u>	5.56	275.0	173.3	0.080	2,262.7	0.0

* Only hours in which a unit operated are listed.

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			<i>Run Time (hrs)</i>	<i>Load (MW)</i>	<i>NOx Emissions Mass (lbs)</i>	<i>NOx Emission Rate (lb/MMBtu)</i>	<i>Natural Gas Heat Input (MMBtu)</i>	<i>Oil Heat Input (MMBtu)</i>
Date: 9/2/2014								
Unit:	Sewaren	1	1					
			12:00:00 AM	1.00	0.0	2.2	0.046	47.4
			1:00:00 AM	0.33	0.0	0.7	0.046	14.4
			2:00:00 AM	0.72	0.0	1.8	0.046	39.0
			3:00:00 AM	1.00	0.0	2.1	0.046	44.8
			4:00:00 AM	1.00	0.0	2.0	0.046	44.3
			5:00:00 AM	1.00	6.0	7.1	0.046	154.1
			6:00:00 AM	1.00	27.0	16.7	0.047	356.0
			7:00:00 AM	1.00	27.0	16.6	0.047	353.0
			8:00:00 AM	1.00	28.0	16.5	0.047	351.7
			9:00:00 AM	1.00	37.0	24.7	0.052	474.4
			10:00:00 AM	1.00	27.0	16.4	0.047	349.0
			11:00:00 AM	1.00	34.0	21.2	0.05	423.6
			12:00:00 PM	1.00	60.0	44.9	0.063	713.0
			1:00:00 PM	1.00	72.0	56.6	0.069	820.1
			2:00:00 PM	1.00	94.0	79.2	0.075	1,056.0
			3:00:00 PM	1.00	112.0	87.5	0.071	1,232.9
			4:00:00 PM	1.00	96.0	77.5	0.076	1,019.6
			5:00:00 PM	1.00	79.0	62.2	0.071	876.0
			6:00:00 PM	1.00	86.0	70.3	0.075	937.0
			7:00:00 PM	1.00	63.0	42.7	0.062	688.2
			8:00:00 PM	1.00	44.0	27.5	0.054	508.6
			9:00:00 PM	1.00	24.0	14.2	0.046	308.8
			10:00:00 PM	1.00	23.0	13.7	0.046	298.6
			11:00:00 PM	0.30	22.0	4.2	0.046	90.8
<u>Sewaren</u>	<u>1</u>	<u>Total</u>	22.35	961.0	708.4	0.055	11,201.3	0.0

* Only hours in which a unit operated are listed.

Friday, January 09, 2015

Page 52 of 54

				NOx Emissions	NOx Emission	Natural Gas	Oil Heat Input
				Mass	Rate	Heat Input	
				(lbs)	(lb/MMBtu)	(MMBtu)	(MMBtu)
				Run Time	Load		
				(hrs)	(MW)		
Date: 9/2/2014							
Unit:	Sewaren	2	2				
	12:00:00 AM	1.00	0.0	5.4	0.096	56.5	0.0
	1:00:00 AM	1.00	0.0	3.5	0.096	36.4	0.0
	2:00:00 AM	1.00	0.0	4.3	0.096	45.3	0.0
	3:00:00 AM	1.00	0.0	5.9	0.096	61.9	0.0
	4:00:00 AM	1.00	0.0	6.0	0.096	62.5	0.0
	5:00:00 AM	1.00	0.0	5.1	0.096	53.1	0.0
	6:00:00 AM	1.00	0.0	6.5	0.096	68.2	0.0
	7:00:00 AM	1.00	8.0	19.2	0.096	199.6	0.0
	8:00:00 AM	1.00	25.0	34.4	0.096	358.2	0.0
	9:00:00 AM	1.00	47.0	57.1	0.096	595.0	0.0
	10:00:00 AM	1.00	28.0	37.4	0.096	389.4	0.0
	11:00:00 AM	1.00	39.0	49.0	0.096	509.9	0.0
	12:00:00 PM	1.00	85.0	92.9	0.096	967.9	0.0
	1:00:00 PM	1.00	90.0	93.7	0.096	976.4	0.0
	2:00:00 PM	1.00	109.0	112.3	0.096	1,169.6	0.0
	3:00:00 PM	1.00	110.0	109.9	0.096	1,144.9	0.0
	4:00:00 PM	1.00	94.0	95.3	0.096	992.5	0.0
	5:00:00 PM	1.00	74.0	77.9	0.096	811.7	0.0
	6:00:00 PM	1.00	49.0	54.3	0.096	565.8	0.0
	7:00:00 PM	1.00	34.0	41.0	0.096	427.6	0.0
	8:00:00 PM	1.00	27.0	35.2	0.096	366.4	0.0
	9:00:00 PM	1.00	24.0	32.5	0.096	338.7	0.0
	10:00:00 PM	1.00	24.0	32.5	0.096	338.4	0.0
	11:00:00 PM	1.00	23.0	31.7	0.096	329.7	0.0
Sewaren	2	Total	24.00	890.0	1,043.0	0.096	10,865.6
							0.0

* Only hours in which a unit operated are listed.

Friday, January 09, 2015

Page 53 of 54

			<i>Run Time</i>	<i>Load</i>	<i>NOx Emissions</i>	<i>NOx Emission</i>	<i>Natural Gas</i>	<i>Oil Heat Input</i>
			<i>(hrs)</i>	<i>(MW)</i>	<i>Mass</i>	<i>Rate</i>	<i>Heat Input</i>	<i>Heat Input</i>
					<i>(lbs)</i>	<i>(lb/MMBtu)</i>	<i>(MMBtu)</i>	<i>(MMBtu)</i>
Date: 9/2/2014								
Unit:	Sewaren	4	4					
	12:00:00 AM	1.00	0.0	3.9	0.032	0.0	0.0	
	1:00:00 AM	1.00	0.0	5.0	0.038	0.0	0.0	
	2:00:00 AM	1.00	0.0	5.7	0.042	0.0	0.0	
	3:00:00 AM	1.00	0.0	5.8	0.042	0.0	0.0	
	4:00:00 AM	1.00	0.0	5.8	0.042	0.0	0.0	
	5:00:00 AM	1.00	0.0	5.9	0.043	0.0	0.0	
	6:00:00 AM	1.00	2.0	5.9	0.043	0.0	0.0	
	7:00:00 AM	1.00	20.0	28.7	0.077	0.0	0.0	
	8:00:00 AM	1.00	24.0	30.0	0.08	0.0	0.0	
	9:00:00 AM	1.00	34.0	40.4	0.078	0.0	0.0	
	10:00:00 AM	1.00	27.0	33.1	0.078	0.0	0.0	
	11:00:00 AM	1.00	45.0	47.8	0.078	0.0	0.0	
	12:00:00 PM	1.00	99.0	95.0	0.079	0.0	0.0	
	1:00:00 PM	1.00	100.0	93.4	0.08	0.0	0.0	
	2:00:00 PM	1.00	105.0	88.9	0.072	0.0	0.0	
	3:00:00 PM	1.00	120.0	102.8	0.073	0.0	0.0	
	4:00:00 PM	1.00	111.0	89.0	0.07	0.0	0.0	
	5:00:00 PM	1.00	91.0	62.5	0.061	0.0	0.0	
	6:00:00 PM	1.00	50.0	32.7	0.054	0.0	0.0	
	7:00:00 PM	1.00	24.0	16.8	0.043	0.0	0.0	
	8:00:00 PM	0.87	19.0	15.1	0.05	0.0	0.0	
<u>Sewaren</u>	<u>4</u>	<u>Total</u>	20.87	871.0	814.2	0.060	0.0	0.0
9/2/2014	Total	104.92	4,555.0	3,813.3	0.074	37,133.5	0.0	

* Only hours in which a unit operated are listed.

Friday, January 09, 2015

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Attachment 5
Selected Unit Operation

Selected Unit Operation During 2014 HEDDs

Date	Edison 11 MW/day	Edison 12 MW/day	Edison 13 MW/day	Edison 14 MW/day	Edison 21 MW/day	Edison 22 MW/day	Edison 23 MW/day	Edison 24 MW/day	Edison 31 MW/day	Edison 32 MW/day	Edison 33 MW/day	Edison 34 MW/day	Sewaren 1 MW/day	Sewaren 2 MW/day	Sewaren 3 MW/day	Sewaren 4 MW/day
18-Jun-14	40	41	0	0	40	0	0	40	0	39	0	36	398	620	526	507
02-Jul-14	191	93	152	165	185	142	157	206	203	140	189	132	779	702	821	881
08-Jul-14	124	53	0	0	120	124	0	0	124	126	0	0	917	1,051	106	596
23-Jul-14	75	78	0	0	94	96	0	0	113	116	0	0	0	0	0	0
02-Sep-14	0	0	0	0	0	0	0	0	0	0	0	0	843	792	0	836

*Note - Units which did not operate during any of the 2014 HEDDs are not listed in this table.
Kearny Unit 9 and Hudson Unit 1 are retired.

Reasons for Operation on HEDDs	
18-Jun-14	Edison 11, 12, 21, 24, 32, 34 were requested online by PJM at 16:04 for economics. Sewaren 1, 2, 3, 4 ran to follow Day Ahead schedule
02-Jul-14	Edison 11, 12, 21, 24, 31, 33 requested online by PJM at 12:55 for economics. Edison 13, 14, 22, 23, 32, 34 requested online by PJM at 14:27 for economics. Sewaren 1, 2, 3, 4 ran to follow Day Ahead schedule
08-Jul-14	Edison 11, 12, 21, 22, 31, 32 requested online by PJM at 14:37 for economics.
23-Jul-14	Edison 11, 12, 21, 22, 31, 32 requested online by PJM at 15:30 for economics.
02-Sep-14	Sewaren 1, 2, 4 ran to follow Day Ahead schedule



January 29, 2014

Mr. Francis Steitz
Department of Environmental Protection
Division of Air Quality
Air Quality Permitting Program
Bureau of Air Permits
401 East State Street
Mail Code 401-02
PO Box 420
Trenton, NJ 08625-0420

**RE: PSEG Fossil LLC
Submittal of 2015 HEDD Emission Limit Achievement Plan – January 2014
Update
N.J.A.C. 7:27-19.30**

Dear Mr. Steitz:

PSEG Fossil LLC (PSEG Fossil) is pleased to submit the attached 2015 High Electric Demand Day (HEDD) Emission Limit Achievement Plan – January 2014 Update containing information required by New Jersey Administrative Code (N.J.A.C.) 7:27-19.30. Should you have any questions or require additional information, please do not hesitate to contact me at (973) 430-6359.

Sincerely,

A handwritten signature in black ink, appearing to read "Erin Gorman", with a long horizontal flourish extending to the right.


Erin Gorman, P.E.
Manager – Environmental Compliance

cc: Michael Hogan (NJDEP)

**PSEG FOSSIL LLC 2015 HEDD EMISSION LIMIT ACHIEVEMENT PLAN
JANUARY 2014 UPDATE**

Certification Pursuant to N.J.A.C. 7:27-1.39(a)1.

I certify under penalty of law that I believe the information provided in this document is true, accurate and complete. I am aware that there are significant civil and criminal penalties, including the possibility of fine or imprisonment or both, for submitting false, inaccurate or incomplete information.



Douglas Gordon
Sr. Environmental Engineer

Certification Pursuant to N.J.A.C. 7:27-1.39(a)2.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attached documents and, based upon my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil and criminal penalties, including the possibility of fine or imprisonment or both, for submitting false, inaccurate or incomplete information.



Mark F. Strickland
Director – Fossil Environmental Affairs



PSEG Fossil LLC

2015 HEDD Emission Limit Achievement Plan

Disclaimer: Please note that the information contained in this plan should be considered preliminary and is subject to change. This plan will be updated each calendar year 2010 through 2014 and will be submitted to the Department by January 30th of the following year.

Pursuant to N.J.A.C. 7:27-19.30(b)1, the following presents a summary of HEDD units that are expected to be taken out of service by May 1, 2015 in lieu of complying by May 1, 2015 with the applicable maximum allowable NOx emission rate(s) in Table 3 at N.J.A.C. 7:27-19.4(a) for boilers or Table 7 at N.J.A.C. 7:27-19.5(g) for turbines.

Table 1

Facility Name	Facility ID	Equipment ID	Unit No.	No. of Turbines / Boilers	HEDD Unit Description	Proposed Out of Service Date	Potential Obstacles
Bergen	02488	E5	3	1	Natural Gas-Fired Pratt & Whitney FT4 Simple Cycle CT	Unit will no longer operate starting 5/1/15	None.
Burlington	45979	E4	8	1	Fuel Oil-Fired Pratt & Whitney FT4 Simple Cycle CT	Unit will no longer operate starting 5/1/15	None.
		E5-E12	9	8	Fuel Oil-Fired Pratt & Whitney FT4 Simple Cycle CT	Units will no longer operate starting 6/1/14	None.
		E13-E20	11	8	Fuel Oil-Fired Pratt & Whitney FT4 Simple Cycle CT	Units will no longer operate starting 5/1/15	None.
Edison	17824	E1-E8	1	8	Dual Fuel-Fired Pratt & Whitney FT4 Simple Cycle CT	Units will no longer operate starting 5/1/15	None.
		E9-E16	2	8	Dual Fuel-Fired Pratt & Whitney FT4 Simple Cycle CT	Units will no longer operate starting 5/1/15	None.
		E17-E24	3	8	Dual Fuel-Fired Pratt & Whitney FT4 Simple Cycle CT	Units will no longer operate starting 5/1/15	None.

January 2014 Update



PSEG Fossil LLC

2015 HEDD Emission Limit Achievement Plan

Facility Name	Facility ID	Equipment ID	Unit No.	No. of Turbines / Boilers	HEDD Unit Description	Proposed Out of Service Date	Potential Obstacles
Essex	07627	E2-E9	10	8	Dual Fuel-Fired Pratt & Whitney FT4 Simple Cycle CT	Units will no longer operate starting 5/1/15	None.
		E10-E17	11	8	Dual Fuel-Fired Pratt & Whitney FT4 Simple Cycle CT	Units will no longer operate starting 5/1/15	None.
		E18-E25	12	8	Dual Fuel-Fired Pratt & Whitney FT4 Simple Cycle CT	Units will no longer operate starting 5/1/15	None.
Hudson	12200	E1	1	1	Dual Fuel-Fired Babcock & Wilcox Boiler	12/8/11	None.
Kearny	12202	E4	9	1	Natural Gas-Fired Pratt & Whitney FT4 Simple Cycle CT	Unit will no longer operate starting 5/1/15	None.
		E5-E12	10	8	Dual Fuel-Fired Pratt & Whitney FT4 Simple Cycle CT	6/1/12	None.
		E13-E20	11	8	Dual Fuel-Fired Pratt & Whitney FT4 Simple Cycle CT	6/1/12	None.
Mercer	61057	E5-E12	3	8	Fuel Oil-Fired Pratt & Whitney FT4 Simple Cycle CT	Units will no longer operate starting 5/1/15	None.
National Park	55778	E1	1	1	Fuel Oil-Fired Pratt & Whitney FT4 Simple Cycle CT	Unit will no longer operate starting 5/1/15	None.
Sewaren	18068	E7-E14	6	8	Fuel Oil-Fired Pratt & Whitney FT4 Simple Cycle CT	Units will no longer operate starting 5/1/15	None.

January 2014 Update



PSEG Fossil LLC

2015 HEDD Emission Limit Achievement Plan

Pursuant to N.J.A.C. 7:27-19.30(b)2, the following presents a summary of HEDD units on which the owner or operator proposes to install a control apparatus, or for which the owner or operator proposes to operate differently, in order to obtain compliance with the applicable maximum allowable NOx emission rate(s) in Table 3 at N.J.A.C. 7:27-19.4(a) for boilers or Table 7 at N.J.A.C. 7:27-19.5(g) for turbines.

Table 2

Facility Name	Facility ID	Equipment ID	Unit No.	No. of Turbines/Boilers	HEDD Unit Description	Proposed Control or Change to Operation	Expected Control Efficiency / Emission Rate	Schedule for Permitting, Installation and Operation	Potential Obstacles
Salem	65500	E39-E40	3	2	Fuel Oil-Fired Pratt & Whitney FT4 Simple Cycle CT	Modify source to allow it to operate as an emergency generator on and after 5/1/2015.	NA	Draft air permit modification currently in 45-day EPA review; final approval expected by the end of February 2014	None
Sewaren	18068	E1	1	1	Dual Fuel-Fired Combustion Engineering Boiler	Removal of oil firing capability; units to operate in compliance with natural gas limit.	NA	Title V renewal application submitted on 10/22/2013	None
		E2	2	1	Dual Fuel-Fired Combustion Engineering Boiler				
		E3	3	1	Dual Fuel-Fired Combustion Engineering Boiler				
		E4	4	1	Dual Fuel-Fired Combustion Engineering Boiler				

January 2014 Update



PSEG Fossil LLC

2015 HEDD Emission Limit Achievement Plan

Pursuant to N.J.A.C. 7:27-19.30(b)3, the following presents a summary of HEDD units that have demonstrated compliance, in accordance with N.J.A.C. 7:27-19.15, with the applicable maximum allowable NOx emission rate(s) in Table 3 at N.J.A.C. 7:27-19.4(a) for boilers or Table 7 at N.J.A.C. 7:27-19.5(g) for turbines.

Table 3

Facility Name	Facility ID	Equipment ID	Unit No.	No. of Turbines	HEDD Unit Description	Max. Allowable NOx Permit Limit (lb/mmBtu)	
						Natural Gas	No. 2 Fuel Oil
Burlington	45979	E36-E39	12	4	Dual Fuel-Fired GE LM6000 Simple Cycle CT	0.12	0.158
Essex	07627	E1	9	1	Dual Fuel-Fired GE 7EA Simple Cycle CT	0.1	0.185
Kearny	12200	E35-E38	12	4	Dual Fuel-Fired GE LM6000 Simple Cycle CT	0.091	0.163
Linden	41810	E6	5	1	Dual Fuel-Fired GE 7EA Simple Cycle CT	0.04	0.159
		E7	6	1	Dual Fuel-Fired GE 7EA Simple Cycle CT	0.04	0.159
		E8	7	1	Dual Fuel-Fired GE 7EA Simple Cycle CT	0.042	0.166
		E9	8	1	Dual Fuel-Fired GE 7EA Simple Cycle CT	0.042	0.166

Notes:

- The maximum allowable NOx Permit Limits are the current emission limits in the associated Title V Operating Permits. These limits will be revised to their respective NOx RACT limits that take effect on May 1, 2015.
- Please note that PSEG Fossil received a Final PSD Permit on 10/27/10 to construct 6 x new GE LM6000 simple cycle combustion turbines which became commercially operational on June 1, 2012. These units were permitted with NOx emission limits that comply with the maximum allowable NOx emission rate in Table 7 at N.J.A.C. 7:27-19.5(g) and the units have demonstrated compliance with their NOx emission limits.

January 2014 Update

**Attachment 2
Verification Completion Form
Page 1 of 1**

Verification Documentation


Correspondence/Letter number: LR-E16-0060 Origination Date: 05/20/2016

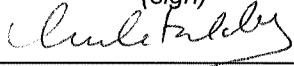
Agency/External Stakeholder: NJDEP Submittal Due Date: 05/31/2016

Recipient of Correspondence: Treasurer – State of NJ
(name and title if known)

Purpose of Submittal: PSEG Nuclear LLC 2015 Hazardous Waste Report Fee

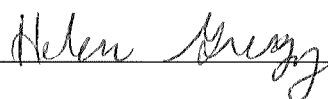
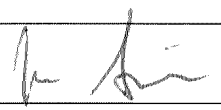
Originating Office: ☐ Salem ☐ Hope Creek ☒ PSEG Nuclear Corporate

Preparer: Michael Pego (print)  (sign) 5/26/16 (date)

Peer Reviewer: Luis Cataldo (print)  (sign) 5/26/2016 (date)

Certified Mail Return Receipt Requested: ☒ Yes ☐ No

Approvals (check box if applicable)

	Applicable	Date Review Needed	Signature of Reviewer	Date of Review
Site Departments				
Nuclear Environmental Affairs	<input checked="" type="checkbox"/>			<u>5/26/16</u>
Chemistry	<input type="checkbox"/>			
Operations	<input type="checkbox"/>			
Engineering	<input type="checkbox"/>			
Regulatory Assurance	<input type="checkbox"/>			
Corporate				
CFAM- Environmental	<input type="checkbox"/>			
Site Management				
Sr. Director Regulatory Affairs	<input checked="" type="checkbox"/>			<u>5/27/16</u>
Site Vice President	<input type="checkbox"/>			
Other:	<input type="checkbox"/>		<input type="checkbox"/> Report Signed and Approved	
Other:	<input type="checkbox"/>			



LR-E16-0060

Dated: MAY 26 2016

Certified Mail, Return Receipt Required

Article Number: 7013 2630 0000 0535 8405

NJ Department of Treasury

Division of Revenue

P.O. Box 417

Trenton, New Jersey 08646-0417

PSEG NUCLEAR LLC.

SALEM AND HOPE CREEK GENERATING STATIONS

2015 HAZARDOUS WASTE REPORT FEE

EPA ID NO. NJD077070811

In accordance with 40 CFR 262.41 and N.J.A.C. 7:26G-3.3, the following documents are enclosed to comply with the 2015 Hazardous Waste Biennial Report submittal requirements:

1. Certification page from www.arminc.net confirming electronic submittal of the biennial hazardous waste report for PSEG Nuclear LLC, Salem and Hope Creek Generating Stations
2. A copy of the signed Site Identification Form (form 8700-12)
3. Completed Fee Verification Form
4. Check number 3000218944 in the amount of \$68.00 payable to: "Treasurer – State of New Jersey" for the subject fees.

Should you have any questions concerning this information please contact Michael Pego at (856) 339-1404, or by email at michael.peggo@pseg.com.

Sincerely,

A handwritten signature in cursive script that reads "Helen Gregory".

Helen Gregory

Environmental Compliance – Manager

Enclosures (4)

Treasurer – State of New Jersey
LR-E16-0060

bcc: Sr. Director – Nuclear Regulatory Affairs
Manager – Nuclear Environmental Affairs
Manager Maintenance Services

Treasurer – State of New Jersey
LR-E16-0060

bcc: Sr. Director – Nuclear Regulatory Affairs
Manager – Nuclear Environmental Affairs
Manager Maintenance Services

**2015 BIENNIAL HAZARDOUS WASTE REPORT
FEE VERIFICATION FORM (For NJ)**

SITE NAME PSEG/Muley LLC Salem/Hope Creek
EPA ID NO N J 0 0 7 7 0 7 0 8 1 1
TOTAL TONS GENERATED IN YEAR 2015 1.65

OFFICIAL USE ONLY

FEE REC'D _____

RA _____

DATE REC'D _____

REC'D BY _____

If you are required to submit a 2015 Biennial Hazardous Waste Report you are required to submit a fee to the State of New Jersey. Please complete the above three fields, and place a check mark the applicable fee category found below. Send your check along with this completed form to the address below. When submitting multiple reports, a separate fee verification form is required for each site. However, the amount owed for separate sites may be combined into one check, so you do not have to send separate checks for multiple sites.

CHECK INFORMATION: Do not send cash. Make check payable to: Treasurer, State of New Jersey. Enclose with, but do not staple the check to this form.

MAIL REPORT AND CHECK TO: NJ Department of Treasury
Division of Revenue
P.O. Box 417
Trenton, NJ 08646-0417

The fees contained below are based on the amount of hazardous waste generated during the calendar year 2015, not the amount shipped. To calculate the amount generated, use section I, box F on the GM form. Convert this figure to tons and calculate the total for all of your GM forms. Round to the hundredth place. For example: 85.105 tons should be rounded to 85.11 tons.

FEE AS LISTED IN N.J.A.C. 7:26G-3.3(a)

<u>Tons of Waste generated in 2015</u>	<u>Amount due if the report is done electronically</u>	<u>Amount due if electronic report is incomplete or inaccurate</u>	<u>Amount due if report is a paper report (hard copy)</u>
Generated waste is less than 1.1 tons	\$34	\$135	\$135
Generated waste is equal to or greater than 1.1 tons but less than 10 tons	\$68	\$270	\$270
Generated waste is equal to or greater than 10 tons but less than 100 tons	\$127	\$507	\$507
Generated waste is equal to or greater than 100 tons but less than 150 tons	\$253	\$1,013	\$1,013
Generated waste is equal to or greater than 150 tons	\$405	\$1,621	\$1,621



PSEG Power LLC
P.O. Box 1868
Newark NJ 07101

3000218944

Page 1 of 1

Further Inquiry call:

DATE 05/20/2016

Vendor No. 114121 TREASURER STATE OF NJ

Invoice Date	Description	Document No.	PO Number	Gross Amount	Discount	Net Amount
05/20/2016	Haz Waste Report Fee 2016HW001	1900000170		68.00	.00	68.00
				Total:	68.00 .00	68.00

FOR SECURITY PURPOSES, THE BACK OF THIS DOCUMENT CONTAINS AN ARTIFICIAL WATERMARK



PSEG Power LLC
P.O. Box 1868
Newark NJ 07101

Wachovia Bank N.A.

3000218944

62-22/311

DATE
05/20/2016

NET AMOUNT
\$*****68.00

PAY EXACTLY Sixty Eight And No/100 Dollars

TO THE
ORDER OF

TREASURER STATE OF NJ
BUREAU OF REVENUE
P O BOX 417
TRENTON, NJ 08646-0417

1

AUTHORIZED SIGNATURE

SIGNATURE HAS A BLUE-GREEN BACKGROUND • BORDER CONTAINS MICROPRINTING MP

⑈ 3000 2 18944 ⑈ ⑆ 03 1 100 2 25 ⑆ 2079950070559 ⑈

**DECLARATION OF ELECTRONIC FILING OF
THE 2015 ANNUAL HAZARDOUS WASTE REPORT**

For the calendar year January 1, 2015, through December 31, 2015

Submit Date

EPA ID NJD077070811

Site/Company Name PSEG SALEM/HOPE CREEK GENERATING STATIONS

Site Address ALLOWAY CREEK NECK ROAD

City HANCOCKS BRIDGE State NJ Zip 08038

Mailing Address PO BOX 236, MAIL CODE N21

City HANCOCKS BRIDGE State NJ Zip 08038

Contact Name ALISON R. KRAUS Phone No 8563397900 Ext

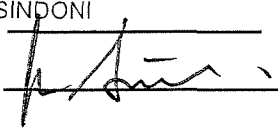
Contact Title MANAGER NUCLEAR ENVIRONMENTAL AFFAIRS

Part I - Declaration of Filer

I certify under penalty of law that the information shown on my 2015 Hazardous Waste Report, which I filed electronically, and 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, is correct and current. Based on my inquiry of the person or persons who manage the system or those directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties under Section 3008 of the Resource Conservation and Recovery Act for submitting false information, including the possibility of fine and imprisonment for known violations.

Part II- Signature of Certification

Last Name SINDONI First Name JOSEPH Title DIRECTOR, REGULATORY AFFAIRS

Signature  Date 05/24/2016

Part III - Method of File Transmittal

 CD

 X ARM Web Site

**** Note:** This is not the 2015 Annual Hazardous Waste Report. Only file this form if you submitted your 2015 Annual Hazardous Waste Report electronically. This form alone does not constitute submittal of the 2015 Hazardous Waste Report but is required for all methods of electronic submission of the report.

Submit Date: 05/24/2016

SII-SSA-0014-001892

10. Type of Regulated Waste Activity

Mark "Yes" or "No" for all current activities (as of the date submitting the form); complete any additional boxes as instructed.

A. Hazardous Waste Activities; Complete all parts 1-7.**☒ ☐ ☐ 1. Generator of Hazardous Waste**

If Yes, choose only one of the following - a, b, or c.

- ☐ a. LQG: Generates, in any calendar month, 1,000 kg/mo (2,200 lbs./mo.) or more of hazardous waste; or Generates, in any calendar month, or accumulates at any time, more than 1 kg/mo (2.2 lbs./mo.) of acute hazardous waste; or Generates, in any calendar month, or accumulates at any time, more than 100 kg/mo (220 lbs./mo.) of acute hazardous spill cleanup

☒ b. SQG: 100 to 1,000 kg/mo (220 - 2,200 lbs./mo.) of non-acute hazardous waste; or

☐ c. CESQG: Less than 100 kg/mo (220 lbs./mo.) of non-acute hazardous waste

If "Yes" above, indicate other generator activities.

☐ ☒ ☐ 2 Short-Term Generator (generate from a short-term or onetime event and not from on-going processes). If "Yes", provide an explanation in the Comments

☐ ☒ ☐ 3. United States Importer of Hazardous Waste

☐ ☒ ☐ 4. Mixed Waste (hazardous and radioactive) Generator

☐ ☒ ☐ 5. Transporter of Hazardous Waste

If Yes, mark all that apply.

- ☐ a. Transporter
☐ b. Transfer Facility (at your site)

☐ ☒ ☐ 6. Treater, Storer, or Disposer of Hazardous Waste (at your site)

Note: A hazardous waste permit is required for this activity.

☐ ☒ ☐ 7. Recycler of Hazardous Waste (at your site)**☐ ☒ ☐ 8. Exempt Boiler and/or Industrial Furnace**

If Yes, mark each that applies.

- ☐ a. Small Quantity On-site Burner Exemption
☐ b. Smelting, Melting, and Refining Furnace Exemption

☐ ☒ ☐ 9. Underground Injection Control**☐ ☒ ☐ 10. Receives Hazardous Waste from Off-site****B. Universal Waste Activities; Complete all parts 1-2.**

☒ ☐ ☐ 1. Large Quantity Handler of Universal Waste (accumulate 5,000 kg or more) [refer to your State regulations to determine what is regulated]. Indicate types of universal waste managed at your site. If "Yes", mark all boxes that apply:

- | | | |
|---------------------------------|---|-------------------------------------|
| a. Batteries | | <input checked="" type="checkbox"/> |
| b. Pesticides | | <input type="checkbox"/> |
| c. Mercury containing equipment | | <input checked="" type="checkbox"/> |
| d. Lamps | | <input checked="" type="checkbox"/> |
| e. Other (specify) | C | <input checked="" type="checkbox"/> |
| f. Other (specify) | O | <input checked="" type="checkbox"/> |
| g. Other (specify) | | <input type="checkbox"/> |

☐ ☒ ☐ 2. Destination Facility for Universal Waste

Note: A hazardous waste permit may be required for this

C. Used Oil Activities; Complete all parts 1-4.**☐ ☒ ☐ 1. Used Oil Transporter**

If Yes, mark each that applies.

- ☐ a. Transporter
☐ b. Transfer Facility

☐ ☒ ☐ 2. Used Oil Processor and/or Re-refiner

If Yes, mark each that applies.

- ☐ a. Processor
☐ b. Re-refiner

☐ ☒ ☐ 3. Off-Specification Used Oil Burner**☐ ☒ ☐ 4. Used Oil Fuel Marketer**

If Yes, mark each that applies.

- ☐ a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner
☐ b. Marketer Who First Claims the Used Oil Meets the Specifications

D. Eligible Academic Entities with Laboratories-Notification for opting into or withdrawing from managing laboratory hazardous wastes pursuant to 40 CFR Part 262 Subpart K

You must check with your State to determine if you are eligible to manage laboratory hazardous wastes pursuant to 40 CFR Part 262 Subpart K

- ☐ 1. Opting into or currently operating under 40 CFR Part 262 Subpart K for the management of hazardous wastes in laboratories

See the item-by-item instructions for definitions of types of eligible academic entities. Mark all that apply:

- ☐ a. College or University
- ☐ b. Teaching Hospital that is owned by or has a formal written affiliation agreement with a college or university
- ☐ c. Non-profit Institute that is owned by or has a formal written affiliation agreement with a college or university

- ☐ 2. Withdrawing from 40 CFR Part 262 Subpart K for the management of hazardous wastes in laboratories

11. Description of Hazardous Wastes

A. Waste Codes for Federally Regulated Hazardous Wastes.

Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g., D001, D003, F007, U112). Use an additional page if more spaces are needed.

D001, D002, D003, D004, D005, D006, D007, D009, D011, D018, D029, D035, D039, D040, F001, F003, F005, F009, P105, U080, U133, U239

B. Waste Codes for State-Regulated (i.e., non-Federal) Hazardous Wastes.

Please list the waste codes of the State-regulated hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed for waste codes.

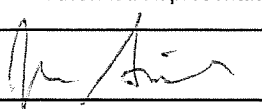
12. Notification of Hazardous Secondary Material (HSM) Activity

☐ **Y** ☒ **NX** Are you notifying under 40 CFR 260.42 that you will begin managing, are managing, or will stop managing hazardous secondary material under 40 CFR 261.2(a)(2)(ii), 40 CFR 261.4(a)(23), (24), or (25)?

If "Yes", you must fill out the Addendum to the Site Identification Form: Notification for Managing Hazardous Secondary Material.

13. Comments**14. Certification**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature of Operator, Owner, or an Authorized Representative	Name and Official Title (type or print)	Date Signed (mm/dd/yyyy)
	JOSEPH M. SINDONI, DIRECTOR, REGULATORY AFFAIRS	05/24/2016

Kieran A. Brown
Assistant General Environmental Counsel

Office of Environmental Counsel
80 Park Plaza, T23, Newark, NJ 07102
tel: 973.430.6124 fax: 973.802-1267
email: Kieran.Brown@pseg.com



April 21, 2015

Bureau of Release Prevention
New Jersey Department of Environmental Protection
401 E. State St
Mailcode 22-03D
Trenton, NJ 08625

Re: Financial Responsibility Documents
PSEG Fossil LLC
PSEG Nuclear LLC

Ladies and Gentlemen:

Enclosed are an original and ten copies of updated financial responsibility documents pursuant to N.J.A.C. 7:1E-4.4. The enclosed documents include the Chief Financial Officer's Letter and a Guarantee executed by the President and Chief Operating Officer of PSEG Power LLC. Each specifies the eleven major facilities that are covered.

If you have any questions, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "K. Brown", with a long horizontal flourish extending to the right.

Kieran A. Brown

Enclosures

GUARANTEE

Guarantee made this April 20, 2015 by PSEG Power LLC, a business entity organized under the laws of the State of Delaware, herein referred to as guarantor, to the New Jersey Department of Environmental Protection ("Department") and to any and all third parties, and obligees, on behalf of its wholly owned operating subsidiaries, PSEG Fossil LLC, which operates the Bergen, Burlington, Essex, Edison, Hudson, Kearny, Linden, Mercer and Sewaren Generating Stations and PSEG Nuclear LLC, which operates Hope Creek and Salem Generating Stations, of 80 Park Plaza, Newark, New Jersey 07101.

- (1) Guarantor meets or exceeds the financial test criteria of N.J.A.C. 7:1E-4.4(g) and agrees to comply with the requirements for guarantors as specified in N.J.A.C. 7:1E-4.4(h).
- (2) PSEG Fossil LLC, a wholly owned subsidiary of guarantor, operates the following major facilities covered by this guarantee:
 - Bergen Generating Station
Victoria Terrace
Ridgefield, New Jersey 07657;
 - Hudson Generating Station
Duffield & Van Keuren Avenues
Jersey City, New Jersey 07306;
 - Kearny Generating Station
Foot of Hackensack Avenue
Kearny, New Jersey 07032;
 - Essex Generating Station
155 Raymond Boulevard
Newark, New Jersey 07105;
 - Linden Generating Station
Grasselli Area of Wood Avenue South
Linden, New Jersey 07036;
 - Sewaren Generating Station
751 Cliff Road
Sewaren, New Jersey 07077-1439;
 - Edison Generating Station
164 Silver Lake Avenue
Edison, New Jersey 08817;

Mercer Generating Station
Lamberton Road
Trenton, New Jersey 08611; and

Burlington Generating Station
W. Broad Street & Devlin Avenue
Burlington, New Jersey 08016.

PSEG Nuclear LLC, a wholly owned subsidiary of guarantor, operates the following major facilities covered by this guarantee:

Salem Generating Station
Foot of Buttonwood Road
P.O. Box 236
Hancocks Bridge, New Jersey 08038; and

Hope Creek Generating Station
Foot of Buttonwood Road
P.O. Box 236
Hancocks Bridge, New Jersey 08038

This guarantee satisfies the requirements of N.J.A.C. 7:1E-4.4 for assuring funding in the amount of \$1,000,000 per occurrence per facility and \$2,000,000 annual aggregate per facility for cleanup and removal activities arising from operating the above identified major facilities.

- (3) On behalf of our wholly owned operating subsidiaries, PSEG Fossil LLC and PSEG Nuclear LLC, guarantor guarantees to the Department and to any and all third parties that:

In the event that PSEG Fossil LLC or PSEG Nuclear LLC fails to provide alternate coverage within 60 days after receipt of a notice of cancellation of this guarantee and the Department has determined or suspects that a discharge has occurred at a facility covered by this guarantee, the guarantor, upon instructions from the Department, shall fund a standby trust fund in an amount sufficient to cover cleanup and removal costs, but not to exceed the coverage limits specified in N.J.A.C. 7:1E-4.4(b).

In the event that the Department determines that PSEG Fossil LLC or PSEG Nuclear LLC has failed to perform cleanup and removal activities arising out of the operation of the above-identified facilities, the guarantor, upon written instructions from the Department, shall fund a standby trust in an amount sufficient to cover cleanup and removal costs, but not to exceed the coverage limits specified above.

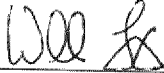
- (4) Guarantor agrees that if, at the end of any fiscal year before cancellation of this guarantee, the guarantor fails to meet the financial test criteria of N.J.A.C. 7:1E-4.4(g), guarantor shall send within 120 days of such failure, by certified mail, notice to PSEG Fossil LLC and PSEG Nuclear LLC and the Department. The guarantee will terminate 120 days from the date of receipt of the notice by PSEG Fossil LLC and PSEG Nuclear LLC or 120 days from the date of receipt of the notice by the Department, whichever is later, as evidenced by the return receipt.
- (5) Guarantor agrees to notify PSEG Fossil LLC and PSEG Nuclear LLC by certified mail of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming guarantor as debtor, within 10 days after commencement of the proceeding.
- (6) Guarantor agrees to remain bound under this guarantee notwithstanding any modification or alteration of any obligation of PSEG Fossil LLC or PSEG Nuclear LLC, pursuant to N.J.A.C. 7:1E.
- (7) Guarantor agrees to remain bound under this guarantee for so long as PSEG Fossil LLC or PSEG Nuclear LLC must comply with the applicable financial responsibility requirements of N.J.A.C. 7:1E-4.4 for the above-identified facilities, except that guarantor may cancel this guarantee by sending notice by certified mail to PSEG Fossil LLC and PSEG Nuclear LLC, and the Department, such cancellation to become effective no earlier than 120 days after receipt of such notice by PSEG Fossil LLC and PSEG Nuclear LLC, or 120 days from the date of receipt of the notice by the Department, whichever is later, as evidenced by the return receipt.
- (8) The guarantor's obligation does not apply to any of the following:
 - (a) Any obligation of PSEG Fossil LLC or PSEG Nuclear LLC under a worker's compensation, disability benefits, or unemployment compensation law or other similar law;
 - (b) Bodily injury to an employee of PSEG Fossil LLC or PSEG Nuclear LLC arising from, and in the course of, employment by PSEG Fossil LLC or PSEG Nuclear LLC.
 - (c) Bodily injury or property damage not related to a discharge arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;
 - (d) Property damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by PSEG Fossil LLC or PSEG Nuclear LLC that is not the direct result of a discharge from the facility;
 - (e) Bodily damage or property damage for which PSEG Fossil LLC or PSEG Nuclear LLC is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of N.J.A.C. 7:1E-4.4.

- (9) Guarantor expressly waives notice of acceptance of this guarantee by the Department or by PSEG Fossil LLC or PSEG Nuclear LLC.

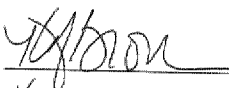
I hereby certify that the wording of this guarantee is identical to the wording specified in Appendix B of N.J.A.C. 7:1E as such rules were constituted on the effective date shown immediately below.

Effective date: April 20, 2015

PSEG Power LLC



William Levis
President and Chief Operating Officer

Signature of witness or notary: _____

Kieran A. Brown
Attorney, State of New Jersey
Assistant General Environmental Counsel
PSEG Services Corp.

LETTER FROM EXECUTIVE VICE PRESIDENT AND CHIEF FINANCIAL OFFICER

I am the Executive Vice President and Chief Financial Officer of PSEG Power LLC, 80 Park Plaza, P.O. Box 1171, Newark, New Jersey 07101-1171. This letter is in support of the use of the financial test of self-insurance and/or guarantee to demonstrate financial responsibility for cleanup and removal activities arising from operating:

Bergen Generating Station
Victoria Terrace
Ridgefield, New Jersey 07657;

Hudson Generating Station
Duffield & Van Keuren Avenues
Jersey City, New Jersey 07306;

Kearny Generating Station
Foot of Hackensack Avenue
Kearny, New Jersey 07032;

Essex Generating Station
155 Raymond Boulevard
Newark, New Jersey 07105;

Linden Generating Station
Grasselli Area of Wood Avenue South
Linden, New Jersey 07036;

Sewaren Generating Station
751 Cliff Road
Sewaren, New Jersey 07077-1439;

Edison Generating Station
164 Silver Lake Avenue
Edison, New Jersey 08817;

Mercer Generating Station
Lamberton Road
Trenton, New Jersey 08611;

Burlington Generating Station
W. Broad Street & Devlin Avenue
Burlington, New Jersey 08016;

Salem Generating Station
Foot of Buttonwood Road
P.O. Box 236
Hancocks Bridge, New Jersey 08038; and

Hope Creek Generating Station
Foot of Buttonwood Road
P.O. Box 236
Hancocks Bridge, New Jersey 08038

in the amount of at least One Million Dollars (\$1,000,000) per occurrence per facility, and Two Million Dollars (\$2,000,000) annual aggregate per facility.

A financial test is also used by this owner or operator to demonstrate evidence of financial responsibility in the following amounts under the following EPA or State rules or regulations (i.e., RCRA, ECRA, UST, etc.):

N/A


This owner or operator has not received an adverse opinion, a disclaimer of opinion, or a going concern qualification from an independent auditor on his or her financial statements for the latest completed fiscal year.

ALTERNATIVE I

	(Millions)
1. Amount of annual DCR aggregate coverage being assured by a financial test and/or guarantee	\$ <u>22</u>
2. Amount of annual aggregate coverage for all other Federal or State regulatory costs (i.e. RCRA, ECRA, UST, etc.) covered by a financial test, and/or guarantee	\$ <u>0</u>
3. Sum of lines 1 and 2	\$ <u>22</u>
4. Total tangible assets	\$ <u>11,946</u>
5. Total liabilities [if any of the amount reported on line 3 is included in total liabilities, you may deduct that amount from this line and add that amount to line 6]	\$ <u>6,488</u>
6. Tangible net worth [subtract line 5 from line 4]	\$ <u>5,458</u>

	<u>YES</u>	<u>NO</u>
7. Is line 6 at least \$10 million?	<u>X</u>	<u> </u>
8. Is line 6 at least 10 times line 3?	<u>X</u>	<u> </u>
9. Have financial statements for the latest fiscal year been filed with the Securities Exchange Commission?	<u>X</u>	<u> </u>
10. Have financial statements for the latest fiscal year been filed with the Energy Information Administration?	<u> </u>	<u>X</u>
11. Have financial statements for the latest fiscal year been filed with the Rural Utilities Services or the Board of Public Utilities?	<u> </u>	<u>X</u>
12. Has financial information been provided to Dun and Bradstreet, and has Dun and Bradstreet provided a financial strength rating of 4A or 5A? [Answer Yes only if both criteria have been met]	<u> </u>	<u>X</u>

I hereby certify that the wording of this letter is identical to the wording specified in Appendix B of N.J.A.C. 7:1E, as such rules were constituted on the date shown immediately below.



Caroline Dorsa
Executive Vice President and
Chief Financial Officer

Date: April 20 , 2015



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BUREAU OF RELEASE PREVENTION

P.O. Box 420, Mail Code 22-03D

22 South Clinton Avenue

Trenton, New Jersey 08625-0420

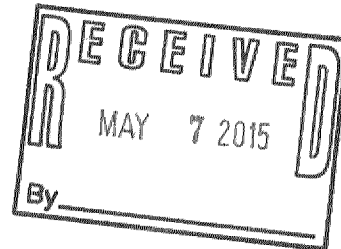
TELEPHONE (609) 633-0610 FAX (609) 633-7031

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

BOB MARTIN
Commissioner

April 30, 2015



Kieran A. Brown
Assistant General Environmental Counsel
PSEG Services Corporation
80 Park Plaza, T23
Newark, NJ 07102

Re: Discharge Prevention, Containment and Countermeasure (DPCC) and Discharge Cleanup and Removal (DCR) Plans - Financial Responsibility for the following PSEG Generating Stations:

Bergen Generating Station, Ridgefield Boro, Bergen County, DIFF # 024900142000
Burlington Generating Station, Burlington Township, Burlington County, DIFF # 030600142000
Essex Generating Station, Newark City, Essex County, DIFF # 071401223000
Hudson Generating Station, Jersey City, Hudson County, DIFF # 090601488000
Kearny Generating Station, Kearny Town, Hudson County, DIFF # 090700466000
Linden Generating Station, Linden City, Union County, DIFF # 200900820000
Mercer Generating Station, Hamilton Township, Mercer County, DIFF # 110300168000
Sewaren Generating Station, Woodbridge Township, Middlesex County, DIFF # 122501297000
Salem & Hope Creek Generating Stations, Lower Alloways Creek, Salem County, DIFF # 170400041000

Dear Ms. Brown:

Thank you for the financial responsibility document submittal, received April 22, 2015, for the above-identified facilities.

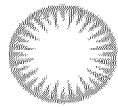
These updated financial documents have been included in the department's copies of the DPCC/DCR plans for the above referenced facilities. Since these documents are part of approved DPCC/DCR plans, the facilities must also keep a copy on site at all times as required by N.J.A.C. 7:1E-4.6(g).

If you have any questions regarding this letter, please contact me at (609) 633-2873.

Respectfully,

Philip Polios, CHMM
Chemical Safety Engineer
Bureau of Release Prevention

c: Beth S. Reddy, Chief, Engineering Review Section
Audrey Dorofy, Chemical Safety Engineer
Christopher Lucien, Environmental Engineer 3
Roy Soong, Environmental Engineer 3



PSEG Power LLC

January 1, 2015 through March 31, 2015 NO_x Emissions Averaging Plan Quarterly Report

Submitted To:

**New Jersey Department of Environmental Protection
Central Regional Office**

April 2015

**SUBMITTED BY: PSEG FOSSIL LLC
80 PARK PLAZA, T25H
NEWARK, NEW JERSEY 07102**

Introduction

The PSEG Power LLC¹ NO_x Emissions Averaging Plan for Nitrogen Oxides (“NO_x”) was originally approved by the New Jersey Department of Environmental Protection (“NJDEP” or “the Department”) on November 8, 1995 pursuant to N.J.A.C. 7:27-19.6. It encompasses nearly all of the Company’s fossil-fuel generation stations in the state, with the exception of Kearny Generating Station Units 13 & 14, which were not added to the plan in the latest revision.

An Emissions Averaging Plan is designed to lower the net NO_x emissions from the generating units in the Plan (the “designated set”) on a daily basis. Designated Set units that can meet their NO_x RACT limit pledge to emit at a lower emissions rate to “balance out” other units in the plan which can not meet their NO_x RACT limits by themselves. This system ensures that the combination of units in a Plan must emit less NO_x than they would otherwise be allowed from permit or other regulatory limits. In fact, many of the NO_x emission limits agreed to between PSEG and the Department have been codified in facility Title V Operating Permits as per N.J.A.C. 7:27-19(c)3, thus providing a federally enforceable agreement between PSEG and NJDEP and permanently implying that unit’s status in the designated set.

The latest revision to the plan was on October 28, 2013². In addition to summarizing historical changes made in NJDEP letters and PSEG 7 day notices, this revision eliminates the fuel switching provisions of N.J.A.C. 7:27-19.20 for Mercer Units 1 and 2. As such, the title of this quarterly report was modified to remove references to these provisions.

The current Averaging Plan designated set consists of 33 generating units. A list of these units and the applicable RACT and allowable NO_x emission limits is included as **Attachment 1**. These tables are additionally attached to the Averaging Plan as Table 1 and 2 of the Conditions of Approval.

The Averaging Plan includes reporting requirements pursuant to N.J.A.C. 7:27-19.6(h). This Quarterly Report documents compliance with the terms of the approved Averaging Plan and subsequent modifications from January 1, 2015 through March 31, 2015, the First Quarter of 2015, hereinafter “Report Period.”

¹ Previous versions of the Plan referred to PSE&G. The latest Plan revision modified these references to PSEG Power LLC, the owner & operator of the generating units in the Designated Set.

² As attached to National Park (PI 55778)’s Title V Operating Permit.

Quarterly Report Designated Set Compliance Summary

1. Per Condition I.A: the reporting period wholly occurred before May 1, 2015, and therefore the Averaging Plan provisions approved by NJDEP and attached to National Park's Title V Permit, of which this quarterly report is one, are still active.
2. Per Condition I.B: the sum of the actual NO_x emissions from all generating units in the designated set did not exceed the sum of the applicable RACT NO_x emissions from all generating units in the designated set. The designated set is required to maintain compliance on a 30-day rolling credit basis for the non-ozone season (this reporting period is entirely in the non-ozone season), and must generate positive credit on a daily basis in the ozone season (no days in this reporting period are in the ozone season).

Documentation pursuant to the above, per Condition VI, is included as **Attachment 2** and **Attachment 3** for daily and 30 day rolling compliance. The maximum RACT and allowable NO_x emission rates are listed in **Attachment 1**.

3. Per Condition I.C: On each day in the reporting period, the daily NO_x rate for all units did not exceed the "allowable" limit for that unit as specified in Table 2 of Appendix A aside from PJM testing (per Condition IV) and startup/shutdown periods (per Condition V) as marked on the daily compliance calculation summaries.

All units in the Designated Set which are required to use continuous emissions monitoring systems (CEMS) operated with them during the entire reporting period. Certain Designated Set units are authorized to operate without CEMS – these are listed in the approved NO_x RACT Alternative Monitoring Plan which is attached to the National Park Title V Operating Permit. [Additionally, see Condition V.B of the Conditions of Approval]

4. Per Condition II, during the reporting period PSEG Fossil did not require potential credit generated by a Designated Set unit which was not able to be operated due to sudden and reasonably unforeseeable circumstances to comply with either a daily or 30-day rolling average credit calculation, and thus did not invoke the provisions of this Condition. In the event that these conditions were exercised, copies of correspondence to the Department would be included in this Quarterly Report.
5. Per Condition III, PJM testing, whenever it occurred on a unit without CEMS, is noted by the term "(PJM)" following the name of a Designated Set Unit in the daily set calculations.
6. Per Condition IV, whenever the transient period exemption was invoked during the reporting period, an asterisk follows the "Y" designating daily unit compliance with its lb/MMBTU limit for that day.

7. Per Condition V.A, all PSEG CEMS in the Designated Set operated pursuant to 40 CFR 60, Appendix F and/or 40 CFR 75, Appendix B (as applicable) specifications during the reporting period. All CEMS were operated according to a Department approved CEMS protocol.

Calculation Methodology

In addition to the provisions in N.J.A.C. 7:27-19.6 and the Conditions of Approval, PSEG is complying with the following modifications to its daily compliance calculations:

40 CFR Part 75 Appendix E Units (Condition VII.A.1)

Pursuant to the NJDEP letter dated November 9, 2000, with regard to the installation of NO_x and CO CEMS on PSEG's low capacity factor steam units, certain additional reporting requirements were imposed by the NJDEP in lieu of the installation of full CEMS on these units. The units to which this applies are Sewaren Unit Nos. 1 and 2. Documentation regarding items 1-3 must be contained in the fourth quarter NO_x Averaging compliance summary, and failure to comply with the conditions will necessitate the installation of CEMS for NO_x, O₂ and CO₂.

Item No. 1 of this letter states that these units must remain classified as peaking units as defined by the Federal Acid Rain and NO_x Budget Programs. A "peaking unit", as defined in 40 CFR 72.2, is a unit that has 1) an average capacity factor of no more than 10.0 percent during the previous three calendar years and 2) a capacity factor of no more than 20.0 percent in each of those calendar years.

For the three-year period between January 1, 2010 and December 31, 2013, Sewaren 1 and 2 meet the criteria for a peaking unit under 40 CFR 72.2, as seen below:

Unit	Capacity Factor (%)			Average Capacity Factor	Maximum Capacity Factor
	2012	2013	2014		
Sewaren 1	3.26%	1.16%	1.10%	1.84%	3.26%
Sewaren 2	1.56%	0.78%	1.35%	1.23%	1.56%

Item No. 3 of this letter states:

The values utilized in an averaging plan must be conservative to account for their lack of real-time accuracy. Accordingly, the values utilized must be 20% above the Appendix E values for each source. Appendix E values are determined in accordance with Appendix E of 40 CFR Part 75.

All Averaging Plan emissions calculations for these units utilize Appendix E values factored up by an additional 20%.

NO_x Budget/CAIR Heat Rate Factors for Simple-Cycle Turbines

Please see Table 3 of the Plan, included in **Attachment 1**.

**PSEG NO_x EMISSIONS AVERAGING PLAN QUARTERLY REPORT
FOR THE PERIOD JANUARY 1, 2015 - MARCH 31, 2015**

Certification Pursuant to N.J.A.C. 7:27-1.39(a)1.

I certify under penalty of law that I believe the information provided in this document is true, accurate and complete. I am aware that there are significant civil and criminal penalties, including the possibility of fine or imprisonment or both, for submitting false, inaccurate or incomplete information.

Handwritten signature of Richard E. Modes, dated 4/28/2015.

Richard E. Modes
Fossil Environmental Specialist

Certification Pursuant to N.J.A.C. 7:27-1.39(a)2.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attached documents and, based upon my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil and criminal penalties, including the possibility of fine or imprisonment or both, for submitting false, inaccurate or incomplete information.

Handwritten signature of Mark F. Strickland.

Mark F. Strickland
Director - Fossil Environmental Affairs

Via UPS

Tracking No.: 1Z 8Y4 17F 13 9358 5050

May 11, 2015

Mr. Chris Odgers
NJDEP Bureau of Air Compliance & Enforcement
Central Regional Office
401 State Street
Trenton, NJ 08625-0420
609-292-3187

**PSEG NO_x EMISSIONS AVERAGING PLAN
FINAL QUARTERLY REPORT
FOR THE PERIOD OF APRIL 1 – APRIL 30, 2015**


Dear Mr. Odgers:

In accordance with N.J.A.C. 7:27-19.6(h), N.J.A.C. 7:27-19.20 and the Conditions of Approval issued by the New Jersey Department of Environmental Protection's ("NJDEP") letter dated November 8, 1995, and as last modified by the Department on October 28, 2013, PSEG Power LLC ("PSEG") hereby submits the attached report for the calendar quarter commencing April 1, 2015 and ending April 30, 2015.

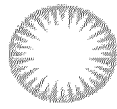
Pursuant to Condition I.A of the Averaging Plan, on and after May 1, 2015 owners and operators of High Electric Demand Day units may no longer use NO_x emissions averaging under N.J.A.C. 7:27-19.4 and 19.5. As such, this quarterly report documents only the period of time in which the Averaging Plan was still in effect (i.e. April 2015).

Also included with this report are the requisite certifications in accordance with N.J.A.C. 7:27-1.39. Should you have any questions concerning the above, please feel free to contact me at (973) 430-6293.

Sincerely,



Richard Modes
Fossil Environmental Specialist
PSEG Power LLC



PSEG Power LLC

**April 1, 2015 through April 30, 2015
NO_x Emissions Averaging Plan
Final Quarterly Report**

Submitted To:

**New Jersey Department of Environmental Protection
Central Regional Office**

May 2015

**SUBMITTED BY: PSEG FOSSIL LLC
80 PARK PLAZA, T25H
NEWARK, NEW JERSEY 07102**

Introduction

The PSEG Power LLC¹ NO_x Emissions Averaging Plan for Nitrogen Oxides (“NO_x”) was originally approved by the New Jersey Department of Environmental Protection (“NJDEP” or “the Department”) on November 8, 1995 pursuant to N.J.A.C. 7:27-19.6. It encompasses nearly all of the Company’s fossil-fuel generation stations in the state, with the exception of Kearny Generating Station Units 13 & 14, which were not added to the plan in the latest revision.

An Emissions Averaging Plan is designed to lower the net NO_x emissions from the generating units in the Plan (the “designated set”) on a daily basis. Designated Set units that can meet their NO_x RACT limit pledge to emit at a lower emissions rate to “balance out” other units in the plan which can not meet their NO_x RACT limits by themselves. This system ensures that the combination of units in a Plan must emit less NO_x than they would otherwise be allowed from permit or other regulatory limits. In fact, many of the NO_x emission limits agreed to between PSEG and the Department have been codified in facility Title V Operating Permits as per N.J.A.C. 7:27-19(c)3, thus providing a federally enforceable agreement between PSEG and NJDEP and permanently implying that unit’s status in the designated set.

The latest revision to the plan was on October 28, 2013². In addition to summarizing historical changes made in NJDEP letters and PSEG 7 day notices, this revision eliminates the fuel switching provisions of N.J.A.C. 7:27-19.20 for Mercer Units 1 and 2. As such, the title of this quarterly report was modified to remove references to these provisions.

The current Averaging Plan designated set consists of 33 generating units. A list of these units and the applicable RACT and allowable NO_x emission limits is included as **Attachment 1**. These tables are additionally attached to the Averaging Plan as Table 1 and 2 of the Conditions of Approval.

Retirement of the NO_x Emissions Averaging Plan

Pursuant to Condition 1.A of the Company’s NO_x Averaging Plan, on and after May 1, 2015 owners and operators of High Electric Demand Day (HEDD) units may no longer use NO_x emissions averaging under N.J.A.C. 7:27-19.4 or 19.5. Therefore this NO_x Emissions Averaging Plan is not valid on and after May 1, 2015. As such, this quarterly report documents compliance with the terms of the approved Averaging Plan and subsequent modifications from April 1, 2015 through April 30, 2015, the Second Quarter of 2015, hereinafter “Report Period,” and includes reporting requirements pursuant to N.J.A.C. 7:27-19.6(h).

As a result of the above limitations, this will be the final quarterly compliance report submitted under the provisions of PSEG’s NO_x Averaging Plan. All emissions limits and other provisions of the Plan included in Title V Operating Permits include a sunset date of May 1, 2015, and

¹ Previous versions of the Plan referred to PSEG. The latest Plan revision modified these references to PSEG Power LLC, the owner & operator of the generating units in the Designated Set.

² As attached to National Park (PI 55778)’s Title V Operating Permit.

therefore there are no additional requirements to close this Plan. PSEG will remove all Averaging Plan provisions from its Title V Operating Permits during periodic renewals and amendments in the future.

Quarterly Report Designated Set Compliance Summary

1. Per Condition I.A: the reporting period only includes April 1, 2015 through April 30, 2015 as the Averaging Plan is no longer active on and after May 1, 2015.
2. Per Condition I.B: the sum of the actual NO_x emissions from all generating units in the designated set did not exceed the sum of the applicable RACT NO_x emissions from all generating units in the designated set. The designated set is required to maintain compliance on a 30-day rolling credit basis for the non-ozone season (this reporting period is entirely in the non-ozone season), and must generate positive credit on a daily basis in the ozone season (no days in this reporting period are in the ozone season).

Documentation pursuant to the above, per Condition VI, is included as **Attachment 2** and **Attachment 3** for daily and 30 day rolling compliance. The maximum RACT and allowable NO_x emission rates are listed in **Attachment 1**.

3. Per Condition I.C: On each day in the reporting period, the daily NO_x rate for all units did not exceed the “allowable” limit for that unit as specified in Table 2 of Appendix A aside from PJM testing (per Condition IV) and startup/shutdown periods (per Condition V) as marked on the daily compliance calculation summaries.

All units in the Designated Set which are required to use continuous emissions monitoring systems (CEMS) operated with them during the entire reporting period. Certain Designated Set units are authorized to operate without CEMS – these are listed in the approved NO_x RACT Alternative Monitoring Plan which is attached to the National Park Title V Operating Permit. [Additionally, see Condition V.B of the Conditions of Approval]

4. Per Condition II, during the reporting period PSEG Fossil did not require potential credit generated by a Designated Set unit which was not able to be operated due to sudden and reasonably unforeseeable circumstances to comply with either a daily or 30-day rolling average credit calculation, and thus did not invoke the provisions of this Condition. In the event that these conditions were exercised, copies of correspondence to the Department would be included in this Quarterly Report.
5. Per Condition III, PJM testing, whenever it occurred on a unit without CEMS, is noted by the term “(PJM)” following the name of a Designated Set Unit in the daily set calculations.

6. Per Condition IV, whenever the transient period exemption was invoked during the reporting period, an asterisk follows the “Y” designating daily unit compliance with its lb/MMBTU limit for that day.
7. Per Condition V.A, all PSEG CEMS in the Designated Set operated pursuant to 40 CFR 60, Appendix F and/or 40 CFR 75, Appendix B (as applicable) specifications during the reporting period. All CEMS were operated according to a Department approved CEMS protocol.

Calculation Methodology

In addition to the provisions in N.J.A.C. 7:27-19.6 and the Conditions of Approval, PSEG is complying with the following modifications to its daily compliance calculations:

40 CFR Part 75 Appendix E Units (Condition VII.A.1)

Pursuant to the NJDEP letter dated November 9, 2000, with regard to the installation of NO_x and CO CEMS on PSEG’s low capacity factor steam units, certain additional reporting requirements were imposed by the NJDEP in lieu of the installation of full CEMS on these units. The units to which this applies are Sewaren Unit Nos. 1 and 2. Documentation regarding items 1-3 must be contained in the fourth quarter NO_x Averaging compliance summary, and failure to comply with the conditions will necessitate the installation of CEMS for NO_x, O₂ and CO₂.

Item No. 1 of this letter states that these units must remain classified as peaking units as defined by the Federal Acid Rain and NO_x Budget Programs. A “peaking unit”, as defined in 40 CFR 72.2, is a unit that has 1) an average capacity factor of no more than 10.0 percent during the previous three calendar years and 2) a capacity factor of no more than 20.0 percent in each of those calendar years.

For the three-year period between January 1, 2010 and December 31, 2013, Sewaren 1 and 2 meet the criteria for a peaking unit under 40 CFR 72.2, as seen below:

Unit	Capacity Factor (%)			Average Capacity Factor	Maximum Capacity Factor
	2012	2013	2014		
Sewaren 1	3.26%	1.16%	1.10%	1.84%	3.26%
Sewaren 2	1.56%	0.78%	1.35%	1.23%	1.56%

Item No. 3 of this letter states:

The values utilized in an averaging plan must be conservative to account for their lack of real-time accuracy. Accordingly, the values utilized must be 20% above the Appendix E values for each source. Appendix E values are determined in accordance with Appendix E of 40 CFR Part 75.

All Averaging Plan emissions calculations for these units utilize Appendix E values factored up by an additional 20%.

NO_x Budget/CAIR Heat Rate Factors for Simple-Cycle Turbines

Please see Table 3 of the Plan, included in **Attachment 1**.

**PSEG NO_x EMISSIONS AVERAGING PLAN FINAL QUARTERLY REPORT
FOR THE PERIOD APRIL 1, 2015 – APRIL 30, 2015**

Certification Pursuant to N.J.A.C. 7:27-1.39(a)1.

I certify under penalty of law that I believe the information provided in this document is true, accurate and complete. I am aware that there are significant civil and criminal penalties, including the possibility of fine or imprisonment or both, for submitting false, inaccurate or incomplete information.

 5/11/2015

Richard E. Modes
Fossil Environmental Specialist

Certification Pursuant to N.J.A.C. 7:27-1.39(a)2.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attached documents and, based upon my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil and criminal penalties, including the possibility of fine or imprisonment or both, for submitting false, inaccurate or incomplete information.



Mark F. Strickland
Director – Fossil Environmental Affairs

Kieran A. Brown
Assistant General Environmental Counsel

Office of Environmental Counsel
80 Park Plaza, T17, Newark, NJ 07102
tel: 973.430.6124 fax: 973.802-1267
email: Kieran.Brown@pseg.com



April 20, 2016

Bureau of Release Prevention
New Jersey Department of Environmental Protection
401 E. State St
Mailcode 22-03D
Trenton, NJ 08625

Re: Financial Responsibility Documents
PSEG Fossil LLC
PSEG Nuclear LLC

Ladies and Gentlemen:

Enclosed are an original and nine copies of updated financial responsibility documents pursuant to N.J.A.C. 7:1E-4.4. The enclosed documents include the Chief Financial Officer's Letter and a Guarantee executed by the President and Chief Operating Officer of PSEG Power LLC. Each specifies the ten major facilities that are covered.

If you have any questions, please do not hesitate to contact me.

Sincerely,

A handwritten signature in dark ink, appearing to be "KAB", followed by a horizontal line extending to the right.

Kieran A. Brown

Enclosures

GUARANTEE

Guarantee made this April 28, 2016 by PSEG Power LLC, a business entity organized under the laws of the State of Delaware, herein referred to as Guarantor, to the New Jersey Department of Environmental Protection ("Department") and to any and all third parties, and obligees, on behalf of its wholly owned operating subsidiaries, PSEG Fossil LLC, which operates the Bergen, Burlington, Essex, Hudson, Kearny, Linden, Mercer and Sewaren Generating Stations and PSEG Nuclear LLC, which operates Hope Creek and Salem Generating Stations, of 80 Park Plaza, Newark, New Jersey 07101.

- (1) Guarantor meets or exceeds the financial test criteria of N.J.A.C. 7:1E-4.4(g) and agrees to comply with the requirements for guarantors as specified in N.J.A.C. 7:1E-4.4(h).
- (2) PSEG Fossil LLC, a wholly owned subsidiary of Guarantor, operates the following major facilities covered by this guarantee:
 - Bergen Generating Station
Victoria Terrace
Ridgefield, New Jersey 07657;
 - Hudson Generating Station
Duffield & Van Keuren Avenues
Jersey City, New Jersey 07306;
 - Kearny Generating Station
Foot of Hackensack Avenue
Kearny, New Jersey 07032;
 - Essex Generating Station
155 Raymond Boulevard
Newark, New Jersey 07105;
 - Linden Generating Station
Grasselli Area of Wood Avenue South
Linden, New Jersey 07036;
 - Sewaren Generating Station
751 Cliff Road
Sewaren, New Jersey 07077-1439;
 - Mercer Generating Station
Lamberton Road
Trenton, New Jersey 08611; and

Burlington Generating Station
W. Broad Street & Devlin Avenue
Burlington, New Jersey 08016.

PSEG Nuclear LLC, a wholly owned subsidiary of Guarantor, operates the following major facilities covered by this guarantee:

Salem Generating Station
Foot of Buttonwood Road
P.O. Box 236
Hancocks Bridge, New Jersey 08038; and

Hope Creek Generating Station
Foot of Buttonwood Road
P.O. Box 236
Hancocks Bridge, New Jersey 08038

This guarantee satisfies the requirements of N.J.A.C. 7:1E-4.4 for assuring funding in the amount of \$1,000,000 per occurrence per facility and \$2,000,000 annual aggregate per facility for cleanup and removal activities arising from operating the above identified major facilities.

- (3) On behalf of our wholly owned operating subsidiaries, PSEG Fossil LLC and PSEG Nuclear LLC, Guarantor guarantees to the Department and to any and all third parties that:

In the event that PSEG Fossil LLC or PSEG Nuclear LLC fails to provide alternate coverage within 60 days after receipt of a notice of cancellation of this guarantee and the Department has determined or suspects that a discharge has occurred at a facility covered by this guarantee, the Guarantor, upon instructions from the Department, shall fund a standby trust fund in an amount sufficient to cover cleanup and removal costs, but not to exceed the coverage limits specified in N.J.A.C. 7:1E-4.4(b).

In the event that the Department determines that PSEG Fossil LLC or PSEG Nuclear LLC has failed to perform cleanup and removal activities arising out of the operation of the above-identified facilities, the Guarantor, upon written instructions from the Department, shall fund a standby trust in an amount sufficient to cover cleanup and removal costs, but not to exceed the coverage limits specified above.

- (4) Guarantor agrees that if, at the end of any fiscal year before cancellation of this guarantee, the Guarantor fails to meet the financial test criteria of N.J.A.C. 7:1E-4.4(g), Guarantor shall send within 120 days of such failure, by certified mail, notice to PSEG Fossil LLC and PSEG Nuclear LLC and the Department. The guarantee will terminate 120 days from the date of receipt of the notice by PSEG

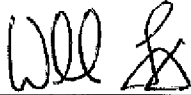
Fossil LLC and PSEG Nuclear LLC or 120 days from the date of receipt of the notice by the Department, whichever is later, as evidenced by the return receipt.

- (5) Guarantor agrees to notify PSEG Fossil LLC and PSEG Nuclear LLC by certified mail of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming Guarantor as debtor, within 10 days after commencement of the proceeding.
- (6) Guarantor agrees to remain bound under this guarantee notwithstanding any modification or alteration of any obligation of PSEG Fossil LLC or PSEG Nuclear LLC, pursuant to N.J.A.C. 7:1E.
- (7) Guarantor agrees to remain bound under this guarantee for so long as PSEG Fossil LLC or PSEG Nuclear LLC must comply with the applicable financial responsibility requirements of N.J.A.C. 7:1E-4.4 for the above-identified facilities, except that Guarantor may cancel this guarantee by sending notice by certified mail to PSEG Fossil LLC and PSEG Nuclear LLC, and the Department, such cancellation to become effective no earlier than 120 days after receipt of such notice by PSEG Fossil LLC and PSEG Nuclear LLC, or 120 days from the date of receipt of the notice by the Department, whichever is later, as evidenced by the return receipt.
- (8) The Guarantor's obligation does not apply to any of the following:
 - (a) Any obligation of PSEG Fossil LLC or PSEG Nuclear LLC under a worker's compensation, disability benefits, or unemployment compensation law or other similar law;
 - (b) Bodily injury to an employee of PSEG Fossil LLC or PSEG Nuclear LLC arising from, and in the course of, employment by PSEG Fossil LLC or PSEG Nuclear LLC.
 - (c) Bodily injury or property damage not related to a discharge arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;
 - (d) Property damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by PSEG Fossil LLC or PSEG Nuclear LLC that is not the direct result of a discharge from the facility;
 - (e) Bodily damage or property damage for which PSEG Fossil LLC or PSEG Nuclear LLC is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of N.J.A.C. 7:1E-4.4.
- (9) Guarantor expressly waives notice of acceptance of this guarantee by the Department or by PSEG Fossil LLC or PSEG Nuclear LLC.

I hereby certify that the wording of this guarantee is identical to the wording specified in Appendix B of N.J.A.C. 7:1E as such rules were constituted on the effective date shown immediately below.

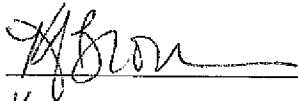
Effective date: April 20, 2016

~~PSEG Power LLC~~



William Levis
President and Chief Operating Officer

Signature of witness or notary:



Kieran A. Brown

Attorney - At - Law, State of New Jersey

LETTER FROM EXECUTIVE VICE PRESIDENT AND CHIEF FINANCIAL OFFICER

I am the Executive Vice President and Chief Financial Officer of PSEG Power LLC, 80 Park Plaza, P.O. Box 1171, Newark, New Jersey 07101-1171. This letter is in support of the use of the financial test of self-insurance and/or guarantee to demonstrate financial responsibility for cleanup and removal activities arising from operating:

Bergen Generating Station
Victoria Terrace
Ridgefield, New Jersey 07657;

Hudson Generating Station
Duffield & Van Keuren Avenues
Jersey City, New Jersey 07306;

Kearny Generating Station
Foot of Hackensack Avenue
Kearny, New Jersey 07032;

Essex Generating Station
155 Raymond Boulevard
Newark, New Jersey 07105;

Linden Generating Station
Grasselli Area of Wood Avenue South
Linden, New Jersey 07036;

Sewaren Generating Station
751 Cliff Road
Sewaren, New Jersey 07077-1439;

Mercer Generating Station
Lamberton Road
Trenton, New Jersey 08611;

Burlington Generating Station
W. Broad Street & Devlin Avenue
Burlington, New Jersey 08016;

Salem Generating Station
Foot of Buttonwood Road
P.O. Box 236
Hancocks Bridge, New Jersey 08038; and

Hope Creek Generating Station
Foot of Buttonwood Road
P.O. Box 236
Hancocks Bridge, New Jersey 08038

in the amount of at least One Million Dollars (\$1,000,000) per occurrence per facility, and Two Million Dollars (\$2,000,000) annual aggregate per facility.

A financial test is also used by this owner or operator to demonstrate evidence of financial responsibility in the following amounts under the following EPA or State rules or regulations (i.e., RCRA, ECRA, UST, etc.):

N/A

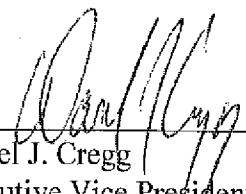
This owner or operator has not received an adverse opinion, a disclaimer of opinion, or a going concern qualification from an independent auditor on his or her financial statements for the latest completed fiscal year.

ALTERNATIVE I

	(Millions)
1. Amount of annual DCR aggregate coverage being assured by a financial test and/or guarantee	\$ <u>20</u>
2. Amount of annual aggregate coverage for all other Federal or State regulatory costs (i.e. RCRA, ECRA, UST, etc.) covered by a financial test, and/or guarantee	\$ <u>0</u>
3. Sum of lines 1 and 2	\$ <u>20</u>
4. Total tangible assets	\$ <u>12,132</u>
5. Total liabilities [if any of the amount reported on line 3 is included in total liabilities, you may deduct that amount from this line and add that amount to line 6]	\$ <u>6,248</u>
6. Tangible net worth [subtract line 5 from line 4]	\$ <u>5,884</u>

	<u>YES</u>	<u>NO</u>
7. Is line 6 at least \$10 million?	<u>X</u>	<u> </u>
8. Is line 6 at least 10 times line 3?	<u>X</u>	<u> </u>
9. Have financial statements for the latest fiscal year been filed with the Securities Exchange Commission?	<u>X</u>	<u> </u>
10. Have financial statements for the latest fiscal year been filed with the Energy Information Administration?	<u> </u>	<u>X</u>
11. Have financial statements for the latest fiscal year been filed with the Rural Utilities Services or the Board of Public Utilities?	<u> </u>	<u>X</u>
12. Has financial information been provided to Dun and Bradstreet, and has Dun and Bradstreet provided a financial strength rating of 4A or 5A? [Answer Yes only if both criteria have been met]	<u> </u>	<u>X</u>

I hereby certify that the wording of this letter is identical to the wording specified in Appendix B of N.J.A.C. 7:1E, as such rules were constituted on the date shown immediately below.


 Daniel J. Cregg
 Executive Vice President and
 Chief Financial Officer

Date: April 20, 2016



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BUREAU OF RELEASE PREVENTION

P.O. Box 420, Mail Code 22-03D

401 E. State Street

Trenton, New Jersey 08625-0420

TELEPHONE (609) 633-0610 FAX (609) 633-7031

CHRIS CHRISTIE

Governor

KIM GUADAGNO

Lt. Governor

BOB MARTIN

Commissioner

April 27, 2016

Kieran Alexandra Brown
Assistant General Environmental Counsel
PSEG Services Corporation
80 Park Plaza, T17
Newark, NJ 07102

Re: Discharge Prevention, Containment and Countermeasure (DPCC) and Discharge Cleanup and Removal (DCR) Plans - Financial Responsibility for the following PSEG Generating Stations:

Bergen Generating Station, Ridgefield Boro, Bergen County, DIFF# 024900142000
Burlington Generating Station, Burlington Twp, Burlington County, DIFF# 030600142000
Hudson Generating Station, Jersey City, Hudson County, DIFF# 090601488000
Essex Generating Station, Newark City, Essex County, DIFF# 071401223000
Kearny Generating Station, Kearny Twp, Hudson County, DIFF# 090700466000
Linden Generating Station, Linden City, Union County, DIFF# 200900820000
Mercer Generating Station, Hamilton Twp, Mercer County, DIFF# 110300168000
Sewaren Generating Station, Woodbridge Twp, Middlesex County, DIFF# 122501297000
Salem & Hope Creek Generating Station, Lower Alloways Creek, Salem County, DIFF# 170400041000

Dear Ms. Brown:

Thank you for the financial responsibility document submittal, received April 21, 2016, for the above-identified facilities.

These updated financial documents have been included in the department's copies of the DPCC/DCR plans for the above referenced facilities. Since these documents are part of an approved DPCC/DCR plans, the facilities must also keep a copy on site at all times as required by N.J.A.C. 7:1E-4.6(g).

If you have any questions regarding this letter, please contact me at (609) 292-1187.

Respectfully,

Roy Soong
Environmental Engineer 3
Bureau of Release Prevention

c: Beth S. Reddy, Chief, DPHS Section
Audrey Dorofy, Chemical Safety Engineer
Philip Polios, Chemical Safety Engineer
Christopher Lucien, Environmental Engineer 3