

DEC 22 2017



HCH-2017-049

Department of Environmental Protection  
Office of Permit Management  
Division of Water Quality  
PO Box 420  
Trenton, N.J. 08625-0420

**NEW JERSEY POLLUTANT DISCHARGE ELIMINATION SYSTEM  
DISCHARGE MONITORING REPORT  
HOPE CREEK GENERATING STATION  
NJPDES PERMIT NJ0025411**

Dear Sir or Madam:

Attached is the Discharge Monitoring Report for the Hope Creek Generating Station for the month of November 2017.

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 Tom Adams at (856) 339-1715.

The Discharge Monitoring Report for Hope Creek Generating Station is now submitted and certified electronically to the NJDEP. This document contains a copy of the Monitoring Report Submittal Forms.

IE25  
NRR

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HCH-2017-049  
NJPDES DMR

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Attachments

C     Executive Director, DRBC  
       USNRC - Docket number 50-354

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HCH-2017-049  
NJPDES DMR

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## EXPLANATION OF CONDITIONS

**November 2017**

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 indicated on the respective transmittal sheet with explanations below.

Results reported on the Discharge Monitoring Report forms are consistent with permit limits, data supplied from contract laboratories, the 2013 revision of the NJDEP Monitoring Report Form Reference Manual, the 2016 revision to the NJPDES Reference Manual for Online Form Submittal and specific guidance from DEP personnel.

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HCH-2017-049  
NJPDES DMR

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## EXPLANATION OF EXCEEDANCES

November 2017

The following exceedances are included in the attached report and explained below.

DSN No.

EXPLANATION

No Exceedances



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

PI: 46815

Shell Generation Date: 7/24/2017

**HOPE CREEK GENERATING STATION - NJ0025411 - 461A DSN 461A - DSW - 11/01/2017 - 11/30/2017**

Permittee:

PSEG NUCLEAR LLC  
PO BOX 236

HANCOCKS BRIDGE, NJ 08038

Location of Activity:

HOPE CREEK GENERATING STATION  
ARTIFICIAL ISLAND  
FOOT OF BUTTONWOOD RD  
LOWER ALLOWAYS CREEK, NJ 08038

Report Recipient:

PSE&G Nuclear LLC - MC - N21  
Alison Kraus  
P.O. BOX 236  
HANCOCKS BRIDGE, NJ 08038

NJPDES Permit Number: NJ0025411  
Monitoring Period: 11/01/2017 To 11/30/2017  
Monitored Location: 461A DSN 461A - DSW  
Monitored Location Group:  
Region / County: Southern / Salem

Check if Applicable: ☐ No Discharge This Monitoring Period

**Monitoring Report Comments:**

For DSN 461A, samples for Sulfate and Copper were obtained and analyzed this month to have all 1/6 month and 1/quarter samples on the same schedule. Sulfate and Copper were also sampled and analyzed in October and reported in October's MRFs.



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

PI: 46815

Shell Generation Date: 7/24/2017

HOPE CREEK GENERATING STATION - NJ0025411 - 461A DSN 461A - DSW - 11/01/2017 - 11/30/2017

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	38.220	45.154	MGD	*****	*****	*****	*****	0	Continuous	METER
	Permit Requirement	REPORT 01MOAV	REPORT 01DAMX		*****	*****	*****			Continuous	METER
	QL	*****	*****		*****	*****	*****				
Flow, In Conduit or Thru Treatment Plant 50050 7 Intake From Stream	Sample Measurement	53.441	58.834	MGD	*****	*****	*****	*****	0	Continuous	METER
	Permit Requirement	REPORT 01MOAV	REPORT 01DAMX		*****	*****	*****			Continuous	METER
	QL	*****	*****		*****	*****	*****				
pH 00400 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	8.5	*****	8.7	SU	0	1 Week	GRAB
	Permit Requirement	*****	*****		6.0 01DAMN	*****	9.0 01DAMX			1/Week	GRAB
	QL	*****	*****		*****	*****	*****				
LC50 Statre 96hr Acu Mysid Bahia TAN3E 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	CODE=N Not Required			%EFFL	0	1 Year	COMPOS
	Permit Requirement	*****	*****		REPORT 01RPMN	*****	*****			1/Year	COMPOS
	QL	*****	*****		*****	*****	*****				
IC25 Statre 7day Chr Mysid Bahia TBP3E 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	CODE=N Not Required			%EFFL	0	1 Year	COMPOS
	Permit Requirement	*****	*****		REPORT 01RPMN	*****	*****			1/Year	COMPOS
	QL	*****	*****		*****	*****	*****				

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No Ex.	Frequency of Analysis	Sample Type
Chlorine Produced Oxidants *CPOX 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	<0.1	<0.1	MG/L	0	3 Week	GRAB
	Permit Requirement	*****	*****	*****	*****	0.2 01MOAV	0.5 01DAMX			3/Week	GRAB
	OL	*****	*****	*****	*****	*****	*****				
Temperature, oC 00010 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	24.2	29.7	DEG.C	0	Continuous	METER
	Permit Requirement	*****	*****	*****	*****	REPORT 01MOAV	36.2 01DAMX			Continuous	METER
	OL	*****	*****	*****	*****	*****	*****				
Temperature, oC 00010 7 Intake From Stream	Sample Measurement	*****	*****	*****	*****	12.8	17.3	DEG.C	0	Continuous	METER
	Permit Requirement	*****	*****	*****	*****	REPORT 01MOAV	REPORT 01DAMX			Continuous	METER
	OL	*****	*****	*****	*****	*****	*****				
Carbon, Tot Organic (TOC) 00680 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	1.65	1.65	MG/L	0	1 Month	GRAB
	Permit Requirement	*****	*****	*****	*****	REPORT 01MOAV	REPORT 01DAMX			1/Month	GRAB
	OL	*****	*****	*****	*****	*****	*****				
Carbon, Tot Organic (TOC) 00680 2 Effluent Net Value	Sample Measurement	*****	*****	*****	*****	0.07	0.07	MG/L	0	1 Month	CALCTD
	Permit Requirement	*****	*****	*****	*****	REPORT 01MOAV	REPORT 01DAMX			1/Month	CALCTD
	OL	*****	*****	*****	*****	*****	*****				

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No Ex.	Frequency of Analysis	Sample Type
Carbon, Tot Organic (TOC) 00680 7 Intake From Stream	Sample Measurement	*****	*****	*****	*****	1.16	1.16	MG/L	0	1 Month	GRAB
	Permit Requirement	*****	*****		*****	REPORT 01MOAV	REPORT 01DAMX			1/Month	GRAB
	OL	*****	*****		*****	*****	*****				
Sulfate, Total (as SO4) 00945 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	1140000	1140000	UG/L	0	1 6 Months	COMPOS
	Permit Requirement	*****	*****		*****	REPORT 01MOAV	REPORT 01DAMX			1/6 Months	COMPOS
	OL	*****	*****		*****	*****	*****				
Boron, Total (as B) 01022 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	1640	1640	UG/L	0	1 6 Months	COMPOS
	Permit Requirement	*****	*****		*****	REPORT 01MOAV	REPORT 01DAMX			1/6 Months	COMPOS
	OL	*****	*****		*****	*****	*****				
Heat (winter) (per Hr.) 81387 1 Effluent Gross Value	Sample Measurement	271	362	MBTU/HR	*****	*****	*****	*****	0	1 Day	CALCTD
	Permit Requirement	REPORT 01MOAV	662 01DAMX		*****	*****	*****			1/Day	CALCTD
	OL	*****	*****		*****	*****	*****				
Chromium, Total (as Cr) 01034 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	5.9	5.9	UG/L	0	1 Month	COMPOS
	Permit Requirement	*****	*****		*****	200 01MOAV	200 01DAMX			1/Month	COMPOS
	OL	*****	*****		*****	*****	*****				



Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No Ex.	Frequency of Analysis	Sample Type
Nickel, Total Recoverable 01074 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	<0.48	<0.48	UG/L	0	1 6 Months	COMPOS
	Permit Requirement	*****	*****	*****	*****	REPORT 01MOAV	REPORT 01DAMX			1/6 Months	COMPOS
	QL	*****	*****	*****	*****	*****	*****				
Zinc, Total (as Zn) 01092 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	32.5	32.5	UG/L	0	1 Month	COMPOS
	Permit Requirement	*****	*****	*****	*****	1000 01MOAV	1000 01DAMX			1/Month	COMPOS
	QL	*****	*****	*****	*****	*****	*****				
Copper, Total Recoverable 01119 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	10.5	10.5	UG/L	0	1 Quarter	COMPOS
	Permit Requirement	*****	*****	*****	*****	REPORT 01MOAV	REPORT 01DAMX			1/Quarter	COMPOS
	QL	*****	*****	*****	*****	*****	*****				
Cyanide, free 00719 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	<10	<10	UG/L	0	1 6 Months	COMPOS
	Permit Requirement	*****	*****	*****	*****	REPORT 01MOAV	REPORT 01DAMX			1/6 Months	COMPOS
	QL	*****	*****	*****	*****	*****	*****				
Lab Certification # 99999 99 Lab	Sample Measurement	17451	06003	*****	PA051	03036					
	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: 46815

Shell Generation Date: 7/24/2017

HOPE CREEK GENERATING STATION - NJ0025411 - 461C DSN 461C - DSW Internal - 11/01/2017 - 11/30/2017

Permittee:

PSEG NUCLEAR LLC  
PO BOX 236

HANCOCKS BRIDGE, NJ 08038

Location of Activity:

HOPE CREEK GENERATING STATION  
ARTIFICIAL ISLAND  
FOOT OF BUTTONWOOD RD  
LOWER ALLOWAYS CREEK, NJ 08038

Report Recipient:

PSE&G Nuclear LLC - MC - N21  
Alison Kraus  
P.O. BOX 236  
HANCOCKS BRIDGE, NJ 08038

NJPDES Permit Number: NJ0025411  
Monitoring Period: 11/01/2017 To 11/30/2017  
Monitored Location: 461C DSN 461C - DSW Internal  
Monitored Location Group:  
Region / County: Southern / Salem

Check if Applicable: ☐ No Discharge This Monitoring Period

Monitoring Report Comments:

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

PI: 46815

Shell Generation Date: 7/24/2017

HOPE CREEK GENERATING STATION - NJ0025411 - 461C DSN 461C - DSW internal - 11/01/2017 - 11/30/2017

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	0.052	0.090	MGD	*****	*****	*****	*****	0	Continuous	METER	
	Permit Requirement	REPORT 01MOAV	REPORT 01DAMX		*****	*****	*****			Continuous	METER	
	QL	*****	*****		*****	*****	*****					
Solids, Total Suspended 00530 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	5	5	MG/L	0	1 Month	COMPOS	
	Permit Requirement	*****	*****		*****	*****	30 01MOAV		100 01DAMX		1/Month	COMPOS
	QL	*****	*****		*****	*****	*****		*****			
Petrol Hydrocarbons, Total Recoverable 45501 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	<2	<2	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	*****	*****	*****	*****	2	2	MG/L	0	1 Month	COMPOS	
	Permit Requirement	*****	*****		*****	*****	REPORT 01MOAV		50 01DAMX		1/Month	COMPOS
	QL	*****	*****		*****	*****	*****		*****			

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No Ex.	Frequency of Analysis	Sample Type
Zinc, Total Recoverable 01094 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	CODE=N Not Required	E=N Not Required		0	1 6 Months	COMPOS
	Permit Requirement	*****	*****	*****	*****	REPORT 01MOAV	REPORT 01DAMX	UG/L		1/6 Months	COMPOS
	QL	*****	*****	*****	*****	*****	*****				
Copper, Total Recoverable 01119 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	CODE=N Not Required	E=N Not Required		0	1 6 Months	COMPOS
	Permit Requirement	*****	*****	*****	*****	REPORT 01MOAV	REPORT 01DAMX	UG/L		1/6 Months	COMPOS
	QL	*****	*****	*****	*****	*****	*****				
Lab Certification #  99999 99 Lab	Sample Measurement	17451	06003		PA051	03036					
	Permit Requirement	REPORT Lab #	REPORT Lab #		REPORT Lab #	REPORT Lab #	REPORT Lab #			Not Applicable	NOT AP
	QL	*****	*****	*****	*****	*****	*****				



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

PI: 46815

Shell Generation Date: 7/24/2017

HOPE CREEK GENERATING STATION - NJ0025411 - 462B DSN 462B - DSW Internal - 11/01/2017 - 11/30/2017

Permittee:

PSEG NUCLEAR LLC  
PO BOX 236

HANCOCKS BRIDGE, NJ 08038

Location of Activity:

HOPE CREEK GENERATING STATION  
ARTIFICIAL ISLAND  
FOOT OF BUTTONWOOD RD  
LOWER ALLOWAYS CREEK, NJ 08038

Report Recipient:

PSE&G Nuclear LLC - MC - N21  
Alison Kraus  
P.O. BOX 236  
HANCOCKS BRIDGE, NJ 08038

NJPDES Permit Number: NJ0025411  
Monitoring Period: 11/01/2017 To 11/30/2017  
Monitored Location: 462B DSN 462B - DSW Internal  
Monitored Location Group:  
Region / County: Southern / Salem

Check if Applicable: ☐ No Discharge This Monitoring Period

Monitoring Report Comments:

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

PI: 46815

Shell Generation Date: 7/24/2017

HOPE CREEK GENERATING STATION - NJ0025411 - 462B DSN 462B - DSW Internal - 11/01/2017 - 11/30/2017

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	0.021	0.047	MGD	*****	*****	*****	*****	0	Continuous	METER
	Permit Requirement	REPORT 01MOAV	REPORT 01DAMX		*****	*****	*****			Continuous	METER
	QL	*****	*****		*****	*****	*****				
BOD, 5-Day (20 oC) 00310 G Raw Sew/Influent	Sample Measurement	*****	*****	*****	*****	177	177	MG/L	0	1 Month	COMPOS
	Permit Requirement	*****	*****		*****	REPORT 01MOAV	REPORT 01DAMX			1/Month	COMPOS
	QL	*****	*****		*****	*****	*****				
BOD, 5-Day (20 oC) 00310 1 Effluent Gross Value	Sample Measurement	1	1	KG/DAY	*****	8	8	MG/L	0	1 Month	COMPOS
	Permit Requirement	8	REPORT 01WKAV		*****	30	45			1/Month	COMPOS
	QL	*****	*****		*****	*****	*****				
BOD, 5-Day (20 oC) 00310 K Percent Removal	Sample Measurement	*****	*****	*****	95.4	*****	*****	PERCENT	0	1 Month	CALCTD
	Permit Requirement	*****	*****		87.5	*****	*****			1/Month	CALCTD
	QL	*****	*****		01MOAVMN	*****	*****				
Solids, Total Suspended 00530 G Raw Sew/Influent	Sample Measurement	*****	*****	*****	*****	300	300	MG/L	0	1 Month	COMPOS
	Permit Requirement	*****	*****		*****	REPORT 01MOAV	REPORT 01DAMX			1/Month	COMPOS
	QL	*****	*****		*****	*****	*****				



Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No Ex.	Frequency of Analysis	Sample Type
Solids, Total Suspended 00530 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	2	2	MG/L	0	1 Month	COMPOS
	Permit Requirement	*****	*****	*****	*****	30 01MOAV	45 01WKAV			1/Month	COMPOS
	QL	*****	*****	*****	*****	*****	*****				
Solids, Total Suspended 00530 K Percent Removal	Sample Measurement	*****	*****	*****	100	100	*****	PERCENT	0	1 Month	COMPOS
	Permit Requirement	*****	*****	*****	85 01MOAVMN	REPORT 01MOAV	*****			1/Month	CALCTD
	QL	*****	*****	*****	*****	*****	*****				
Oil and Grease 00556 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	<1	<1	MG/L	0	1 Month	GRAB
	Permit Requirement	*****	*****	*****	*****	10 01MOAV	15 01DAMX			1/Month	GRAB
	QL	*****	*****	*****	*****	*****	*****				
Nitrogen, Ammonia Total (as N) 00610 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	2	2	MG/L	0	1 Month	COMPOS
	Permit Requirement	*****	*****	*****	*****	35 01MOAV	REPORT 01DAMX			1/Month	COMPOS
	QL	*****	*****	*****	*****	*****	*****				
Coliform, Fecal General 74055 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	<1	<1	#/100ML	0	1 Month	GRAB
	Permit Requirement	*****	*****	*****	*****	200 01MOGE	400 01WKGE			1/Month	GRAB
	QL	*****	*****	*****	*****	*****	*****				

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No Ex.	Frequency of Analysis	Sample Type	
Zinc, Total Recoverable 01094 1	Sample Measurement	*****	*****	*****	*****	52.4	52.4	UG/L	:	1	COMPOS	
Effluent Gross Value	Permit Requirement	*****	*****		*****	REPORT 01MOAV	REPORT 01DAMX			0		6 Months
	QL	*****	*****		*****	*****	*****					1/6 Months
Copper, Total Recoverable 01119 1	Sample Measurement	*****	*****	*****	*****	31.2	31.2	UG/L	0	1	COMPOS	
Effluent Gross Value	Permit Requirement	*****	*****		*****	REPORT 01MOAV	REPORT 01DAMX					6 Months
	QL	*****	*****		*****	*****	*****					1/6 Months
Cyanide, free  00719 1	Sample Measurement	*****	*****	*****	*****	<10	<10	UG/L	0	1	COMPOS	
Effluent Gross Vaue	Permit Requirement	*****	*****		*****	REPORT 01MOAV	REPORT 01DAMX					6 Months
	QL	*****	*****		*****	*****	*****					1/6 Months
Lab Certification #  99999 99	Sample Measurement	17451	06003	*****	PA051							
Lab	Permit Requirement	REPORT Lab #	REPORT Lab #		*****	REPORT Lab #	REPORT Lab #		REPORT Lab #			Not Applicable
	QL	*****	*****		*****	*****	*****		*****			NOT APPLICABLE