

JUL 23 2018



HCH-2018-036

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 June 2018.

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.

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JUL 23 2018

HCH-2018-036

2

NJPDES DMR

Attachments

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

HCH-2018-036  
NJPDES DMR

3

## EXPLANATION OF CONDITIONS

### June 2018

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.

Cooling Tower Blowdown flow instrumentation continuous feed was out of service from the beginning of the month through 6/19/18. Flow data substituted was obtained from the flow recorder once per four hours.

On 6/21/18 at 0849 power was lost to the Cooling Tower Blowdown Dechlorination system. All Chlorination systems were promptly secured. Cooling Tower Blowdown samples were obtained approximately every hour until Cooling Tower Blowdown TRC was < detectable at 1421 on 6/21/18. NJDEP was contacted.

JUL 23 2018

HCH-2018-036  
NJPDES DMR

4

## EXPLANATION OF EXCEEDANCES

**June 2018**

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: 4/1/2018

**HOPE CREEK GENERATING STATION - NJ0025411 - 461A DSN 461A - DSW - 06/01/2018 - 06/30/2018**

**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:** 06/01/2018 To 06/30/2018  
**Monitored Location:** 461A DSN 461A - DSW  
**Monitored Location Group:**  
**Region / County:** Southern / Salem

**Check if Applicable:** ☐ No Discharge This Monitoring Period

**Monitoring Report Comments:**

Cooling Tower Blowdown flow instrumentation continuous feed was out of service from the beginning of the month through 6/19/18. Flow data substituted was obtained from the flow recorder once per four hours.  
On 6/21/18 at 0849 power was lost to the Cooling Tower Blowdown Dechlorination system. All Chlorination systems were promptly secured. Cooling Tower Blowdown samples were



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

PI: 46815

Shell Generation Date: 4/1/2018

HOPE CREEK GENERATING STATION - NJ0025411 - 461A DSN 461A - DSW - 06/01/2018 - 06/30/2018

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	60.749	84.077	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	70.939	72.653	MGD	*****	*****	*****	*****	0	Continuous	METER
	Permit Requirement	REPORT 01MOAV	REPORT 01DAMX		*****	*****	*****			Continuous	METER
	QL	*****	*****		*****	*****	*****				
pH 00400 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	8.3	*****	8.4	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
	QL	*****	*****		*****	*****	*****				
Temperature, oC 00010 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	31.1	34.4	DEG.C	0	Continuous	METER
	Permit Requirement	*****	*****		*****	REPORT 01MOAV	36.2 01DAMX			Continuous	METER
	QL	*****	*****		*****	*****	*****				
Temperature, oC 00010 7 Intake From Stream	Sample Measurement	*****	*****	*****	*****	25.0	27.4	DEG.C	0	Continuous	METER
	Permit Requirement	*****	*****		*****	REPORT 01MOAV	REPORT 01DAMX			Continuous	METER
	QL	*****	*****		*****	*****	*****				
Carbon, Tot Organic (TOC) 00680 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	2.88	2.88	MG/L	0	1 Month	GRAB
	Permit Requirement	*****	*****		*****	REPORT 01MOAV	REPORT 01DAMX			1/Month	GRAB
	QL	*****	*****		*****	*****	*****				
Carbon, Tot Organic (TOC) 00680 2 Effluent Net Value	Sample Measurement	*****	*****	*****	*****	-0.17	-0.17	MG/L	0	1 Month	CALCTD
	Permit Requirement	*****	*****		*****	REPORT 01MOAV	REPORT 01DAMX			1/Month	CALCTD
	QL	*****	*****		*****	*****	*****				
Carbon, Tot Organic (TOC) 00680 7 Intake From Stream	Sample Measurement	*****	*****	*****	*****	2.43	2.43	MG/L	0	1 Month	GRAB
	Permit Requirement	*****	*****		*****	REPORT 01MOAV	REPORT 01DAMX			1/Month	GRAB
	QL	*****	*****		*****	*****	*****				



Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No Ex.	Frequency of Analysis	Sample Type
Sulfate, Total (as SO4) 00945 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	CODE=N Not Req	E=N Not Required	UG/L	0	1 6 Months	COMPOS
	Permit Requirement	*****	*****		*****	REPORT 01MOAV	REPORT 01DAMX			1/6 Months	COMPOS
	QL	*****	*****		*****	*****	*****				
Boron, Total (as B) 01022 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	CODE=N Not Req	E=N Not Required	UG/L	0	1 6 Months	COMPOS
	Permit Requirement	*****	*****		*****	REPORT 01MOAV	REPORT 01DAMX			1/6 Months	COMPOS
	QL	*****	*****		*****	*****	*****				
Heat (summer) (per Hr.) 81386 1 Effluent Gross Value	Sample Measurement	232	350	MBTU/HR	*****	*****	*****	*****	0	1 Day	CALCTD
	Permit Requirement	REPORT 01MOAV	534 01DAMX		*****	*****	*****			1/Day	CALCTD
	QL	*****	*****		*****	*****	*****				
Chromium, Total (as Cr) 01034 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	6	6	UG/L	0	1 Month	COMPOS
	Permit Requirement	*****	*****		*****	200 01MOAV	200 01DAMX			1/Month	COMPOS
	QL	*****	*****		*****	*****	*****				
Nickel, Total Recoverable 01074 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	CODE=N Not Req	E=N Not Required	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	*****	*****	*****	*****	17	17	UG/L	0	1 Month	COMPOS
	Permit Requirement	*****	*****		*****	1000 01MOAV	1000 01DAMX			1/Month	COMPOS
	QL	*****	*****		*****	*****	*****				



Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No Ex.	Frequency of Analysis	Sample Type
Copper, Total Recoverable 01119 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	5.4	5.4	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	*****	*****	*****	*****	CODE=N Not Req	E=N Not Required	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: 4/1/2018

**HOPE CREEK GENERATING STATION - NJ0025411 - 461C DSN 461C - DSW internal - 06/01/2018 - 06/30/2018**

**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:** 06/01/2018 To 06/30/2018  
**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: 4/1/2018

HOPE CREEK GENERATING STATION - NJ0025411 - 461C DSN 461C - DSW internal - 06/01/2018 - 06/30/2018

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	0.037	0.110	MGD	*****	*****	*****	*****	0	Continuous	METER
	Permit Requirement	REPORT 01MOAV	REPORT 01DAMX		*****	*****	*****		Continuous	METER	
	QL	*****	*****		*****	*****	*****				
Solids, Total Suspended 00530 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	6	6	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	*****	*****	*****	*****	3	4	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	*****	*****	*****	*****	5	5	MG/L	0	1 Month	COMPOS
	Permit Requirement	*****	*****		*****	REPORT 01MOAV	50 01DAMX		1/Month	COMPOS	
	QL	*****	*****		*****	*****	*****				
Zinc, Total Recoverable 01094 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	CODE=N Not Req E=N Not Required		UG/L	0	1 6 Months	COMPOS
	Permit Requirement	*****	*****		*****	REPORT 01MOAV	REPORT 01DAMX		1/6 Months	COMPOS	
	QL	*****	*****		*****	*****	*****				

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No Ex.	Frequency of Analysis	Sample Type
Copper, Total Recoverable 01119 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	CODE=N Not Req	E=N Not Required	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: 4/1/2018

**HOPE CREEK GENERATING STATION - NJ0025411 - 462B DSN 462B - DSW Internal - 06/01/2018 - 06/30/2018**

**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:** 06/01/2018 To 06/30/2018  
**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: 4/1/2018

HOPE CREEK GENERATING STATION - NJ0025411 - 462B DSN 462B - DSW Internal - 06/01/2018 - 06/30/2018

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	0.036	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	*****	*****	*****	*****	265	265	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	*****	7	7	MG/L	0	1 Month	COMPOS
	Permit Requirement	8 01MOAV	REPORT 01WKAV		*****	30 01MOAV	45 01WKAV			1/Month	COMPOS
	QL	*****	*****		*****	*****	*****				
BOD, 5-Day (20 oC) 00310 K Percent Removal	Sample Measurement	*****	*****	*****	97.4	*****	*****	PERCENT	0	1 Month	CALCTD
	Permit Requirement	*****	*****		87.5 01MOAVMN	*****	*****			1/Month	CALCTD
	QL	*****	*****		*****	*****	*****				
Solids, Total Suspended 00530 G Raw Sew/Influent	Sample Measurement	*****	*****	*****	*****	196	196	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	*****	*****	*****	*****	1	1	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	*****	*****	*****	99	99	*****	PERCENT	0	1 Month	CALCTD
	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	*****	*****	*****	*****	1	1	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 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	CODE=N Not Req	E=N Not Required	UG/L	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 Req	E=N Not Required	UG/L	0	1 6 Months	COMPOS
	Permit Requirement	*****	*****	*****	*****	REPORT 01MOAV	REPORT 01DAMX	UG/L		1/6 Months	COMPOS
	QL	*****	*****	*****	*****	*****	*****				
Cyanide, free 00719 1 Effluent Gross Value	Sample Measurement	*****	*****	*****	*****	CODE=N Not Req	E=N Not Required	UG/L	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						
	Permit Requirement	REPORT Lab #	REPORT Lab #		REPORT Lab #	REPORT Lab #	REPORT Lab #			Not Applic	NOT AP
	QL	*****	*****		*****	*****	*****				