



Entergy Nuclear Operations, Inc.
Pilgrim Nuclear Power Station
600 Rocky Hill Road
Plymouth, MA 02360

Stephen J. Bethay
Director, Nuclear Safety Assurance

ENV 1.11-008

July 20, 2011

U.S. Environmental Protection Agency
Water Enforcement, OES4-SMR
5 Post Office Square, Suite 100
Boston, MA 02109-3912

Massachusetts Department of Environmental Protection
Southeast Regional Office
20 Riverside Drive
Lakeville, MA 02347

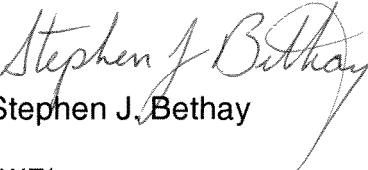
Subject: Discharge Monitoring Report — June 2011
NPDES Permit Number MA0003557

Dear Sir or Madam:

Enclosed is the June 2011 Discharge Monitoring Report (DMR) for Pilgrim Nuclear Power Station, NPDES Permit Number MA0003557 (Federal) and Number 359 (State). Also included is a summary of the discharge data for the month with any notes or additional information (Attachment 1). During the time period June 1 through 30, 2011, there were no permit exceedances.

Should you have any questions about this report, please direct them to Mr. Joseph Egan, Chemistry Department (Environmental), Pilgrim Nuclear Power Station, (508) 830-8915.

Sincerely,


Stephen J. Bethay

JWE/

Attachments: 1. Summary – Additional Information for June 2011 DMR
2. Discharge Monitoring Report (completed DMR forms)



ATTACHMENT 1 to Letter ENV 1.11-008

Summary — Additional Information for June 2011 D.M.R.

Pilgrim Nuclear Power Station – Discharge Monitoring Report

In accordance with the Federal Clean Water Act, as amended (33 USC 1251 et seq.), and the Massachusetts Clean Water Act, as amended (M.G.L.; Chap. 21, 26-53), regarding effluent limitations, monitoring requirements and other conditions set forth in the Pilgrim NPDES permit (Federal Permit Number MA0003557 and State Permit Number 359), Parts I and II, the following information is submitted.

I. Discharge Points Covered in this Report

<u>Outfall No.</u>	<u>Discharge Identification</u>
001-1	Condenser Cooling Water (or Circ. Water System)
002-1	Thermal Backwash for Biofouling Control
003-A	Intake Screen Wash
004, 005, 006, and 007	Yard (Storm) Drains – Spring and Fall only
008-A	Sea Foam Suppression
010-A	Service Cooling Water (or Salt Service Water System)
011-A	Makeup Water and Demineralizer Waste Discharge (Neutralizing Sump or others)

II. Summary and Notes of Discharge Report

- A. The flows from discharge points 001, 002, 003, 008 and 010 are calculated from estimated pump capacity and cumulative hours of pump operation. The flow from point 001 is estimated assuming a Circulating Water pump capacity of 155,000 GPM (as described in Pilgrim's "§308 Response" letter dated July 1, 2008 from Goodwin Procter to U.S. EPA). The flow from point 011 is estimated from the volume discharged.
- B. The temperatures at points 001 and 002 are measured by resistance temperature detectors (RTDs) and compiled as one minute values.
- C. Grab samples for the four storm water outfalls are to be collected and analyzed twice per year in accordance with 40 CFR 136. Semi-annual NPDES storm drain sampling was not possible in June due to environmental conditions, therefore, these discharge points will be sampled at the next opportunity and will be reported in the subsequent DMR.
- D. During occasional periods of increased debris-loading in the intake cooling water, the sluice water from the traveling screens (point #003) is diverted to the discharge canal.
- E. Chlorination of the condenser cooling water (discharge point #001) occurred on 25 days this month, for no more than 2 hours per day.

II. Summary and Notes of Discharge Report (continued)

- F. A planned discharge was performed on June 2 to dispose of process water that had become contaminated with impurities, primarily salt, as a result of the leak documented in previous reports (discovered on January 19 and repaired on April 21). The influx of (Salt) Service Water into the Closed Cooling Water systems required this contaminated water to be replaced, in order to restore proper cooling water system chemistry. This mildly radioactive discharge from the neutralizing sump (discharge point 011) was performed with both circulating (seawater) pumps in service and met all permit limits.

Date discharged - June 2, 2011 Total volume discharged = 9853 gallons.
 Discharge Flow Rates: Average ~ 100 gallons/minute, Maximum <= 200 gal./min.
 Total suspended solids (TSS) conc. = 5.4 mg/liter, pH = 7.32. The initial (batch) and final effluent (001) concentrations of boron, sodium nitrite and tolyltriazole were:

	<u>Before discharge</u>	<u>After dilution</u>
Boron concentration	0.44 mg/liter	< 0.001 mg/liter
Sodium nitrite concentration	579 mg/liter	0.374 mg/liter
Tolyltriazole concentration	9.0 mg/liter	0.006 mg/liter

- G. At approximately 9:00 a.m. on June 23, 2011, about 50 to 100 gallons of water overflowed from a septic system holding tank (located north of the switchyard) and into a storm drain. The water that flowed into the storm sewer was clear and had a slight odor. Soon after the overflow was noticed, a berm was placed around the storm drain and the water supply to the Operations & Maintenance building was shut off.

It is approximately 600 yards from this storm drain to the point where outfall #007 empties into the intake embayment. This area was walked down and no other anomalies were present. A drain cleaning contractor was brought in and the line from the septic tank to the lift station was cleaned out, and the system was returned to normal operation. There was no environmental impact apparent as a result of this occurrence and none would be expected given the low flow rate and volume of the overflow, and the rapid dilution occurring in the intake embayment.

ATTACHMENT 2
to Letter ENV 1.11-008

COMPLETED
DISCHARGE MONITORING REPORT
FORMS

(6 pages of DMR Forms enclosed)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME: ENGC - PILGRIM NUCLEAR POWER
ADDRESS: 600 ROCKY HILL ROAD
PLYMOUTH, MA 02360

FACILITY: PILGRIM NUCLEAR POWER STATION
LOCATION: 600 ROCKY HILL ROAD
PLYMOUTH, MA 02360

ATTN: David Noyes, Operations Mang.

MA0003557
PERMIT NUMBER

001-1
DISCHARGE NUMBER

DMR Mailing ZIP CODE: 02360
MAJOR (SUBR S)

CONDENSER COOLING WATER
External Outfall

No Discharge

MONITORING PERIOD
MM/DD/YYYY TO MM/DD/YYYY
06/01/2011 TO 06/30/2011

PARAMETER	QUANTITY OR LOADING		QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	VALUE	UNITS	VALUE	VALUE	UNITS			
Temperature, water deg. fahrenheit 00011 1 0 Effluent Gross	*****	*****	*****	97.7	°F	0	99/99	RC
	*****	*****	*****	102 DAILY MX	deg F		Continuous	RCORDR
Oxidants, total residual 34044 1 0 Effluent Gross	*****	*****	0.04	0.08	mg/L	0	Wk/Ds	GR
	*****	*****	*****	1 MO AVG	mg/L		When Discharging	GRAB
Flow, in conduit or thru treatment plant 50050 1 0 Effluent Gross	446.4	MGD	*****	*****	*****	0	99/99	ES
	447 MO AVG	Mgal/d	*****	*****	*****		Continuous	ESTIMA
Temp. diff. between intake and discharge 61576 1 0 Effluent Gross	*****	*****	*****	30.5	°F	0	99/99	CA
	*****	*****	*****	32 DAILY MX	deg F		Continuous	CALCTD

I certify under penalty of law that this document and all information 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 PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT
David Noyes

TELEPHONE NUMBER
508 830-8117
DATE
07/28/11
AREA Code NUMBER
MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

PH SHALL NOT VARY MORE THAN 0.5 PHS STANDARD UNITS FROM INTAKE WATER. SEE PERMIT PAGE 5 PARAGRAPHS M&N FOR BORON AND SODIUM NITRATE REPORTING REQUIREMENTS. ATTACH ALL RELATED REPORTS TO THIS FORM. A BARRIER NET SHALL BE MAINTAINED AT THE THERMAL END OF DISCHARGE CANAL AT ALL TIMES.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME: ENG - PILGRIM NUCLEAR POWER
ADDRESS: 600 ROCKY HILL ROAD
PLYMOUTH, MA 02360

FACILITY: PILGRIM NUCLEAR POWER STATION
LOCATION: 600 ROCKY HILL ROAD
PLYMOUTH, MA 02360

ATTN: David Noyes, Operations Mang.

MA0003557
PERMIT NUMBER

002-1
DISCHARGE NUMBER

DMR Mailing ZIP CODE: 02360
MAJOR (SUBR S)
THERMAL BACKWASH
External Outfall

MONITORING PERIOD
MM/DD/YYYY TO MM/DD/YYYY
06/01/2011 TO 06/30/2011

No Discharge C

PARAMETER	SAMPLE MEASUREMENT PERMIT REQUIREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	VALUE	UNITS	VALUE			
Temperature, water deg. fahrenheit		*****	*****	*****	*****	*****	°F	99/99	RC	
00011 1 0 Effluent Gross		*****	*****	*****	*****	*****	deg F	Continuous	RCORDR	
Flow, in conduit or thru treatment plant		*****	MGD	*****	*****	*****	*****	Wh/Ds	ES	
50050 1 0 Effluent Gross		*****	Mgal/d	*****	*****	*****	*****	When Discharging	ESTIMA	

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER <i>David Noyes Operations Mgr.</i>	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT <i>[Signature]</i>	TELEPHONE 508 830-8117	DATE 07/18/2011
TYPED OR PRINTED		AREA Code NUMBER	MM/DD/YYYY MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

THE PH SHALL NOT VARY MORE THAN 0.5 STANDARD UNITS FROM THAT OF THE INTAKE WATER. FLOW RATE IS TO BE ESTIMATED AS IF BACKFLUSHING TOOK PLACE FOR 24 CONTINUOUS HOURS. SEE PERMIT PAGE 8 FOR CONDITIONS REGARDING THE FREQUENCY OF DISCHARGE.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME: ENG - PILGRIM NUCLEAR POWER
ADDRESS: 600 ROCKY HILL ROAD
PLYMOUTH, MA 02360

FACILITY: PILGRIM NUCLEAR POWER STATION
LOCATION: 600 ROCKY HILL ROAD
PLYMOUTH, MA 02360

ATTN: David Noyes, Operations Mang.

MA0003557
PERMIT NUMBER

003-A
DISCHARGE NUMBER

DMR Mailing ZIP CODE: 02360

MAJOR
(SUBR S)
INTAKE SCREEN WASH
External Outfall

No Discharge

MONITORING PERIOD
MM/DD/YYYY TO MM/DD/YYYY
06/01/2011 TO 06/30/2011

PARAMETER	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	VALUE	UNITS	VALUE	VALUE	UNITS	VALUE			
Flow, in conduit or thru treatment plant	2.7	MGD	*****	*****	*****	*****	0	01/d	ES
50050 1 0 Effluent Gross	4.1 MO AVG	Mgal/d	*****	*****	*****	*****		Daily	ESTIMA

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER <i>David Noyes Operations Mgr.</i>	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		TELEPHONE	DATE
	<i>David Noyes</i>		508 830-8117	07/18/2011
TYPED OR PRINTED	AREA Code	NUMBER	MM/DD/YYYY	
			MM/DD/YYYY	

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

THE TEMPERATURE OF THIS DISCHARGE SHALL AT NO TIME EXCEED THE TEMPERATURE OF THE INTAKE WATER ALL FISH SHELLFISH AND OTHER ORGANISMS COLLECTED OR TRAPPED ON INTAKESCREEN SHOULD BE RETURNED TO WATEROF AMBIENT TEMP. SUFFICIENTLY DISTAN FROM INTAKE STRUCTURES TO PREVENT REIMPINGEMENT.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME: ENG - PILGRIM NUCLEAR POWER
ADDRESS: 600 ROCKY HILL ROAD
PLYMOUTH, MA 02360

FACILITY: PILGRIM NUCLEAR POWER STATION
LOCATION: 600 ROCKY HILL ROAD
PLYMOUTH, MA 02360

ATTN: David Noyes, Operations Mang.

MA0003557
PERMIT NUMBER

008-A
DISCHARGE NUMBER

DMR Mailing ZIP CODE: 02360
MAJOR
(SUBR S)

SEA FOAM SUPPRESSION DISCHARGE
External Outfall

No Discharge

FROM 06/01/2011 **TO** 06/30/2011
MONITORING PERIOD

PARAMETER	QUANTITY OR LOADING		QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Flow, in conduit or thru treatment plant		MGD	*****	*****	*****	*****	0	01/01	ES
50050 1 0 Effluent Gross	.73 MO AVG	Mgal/g	*****	*****	*****	*****		Daily	ESTIMA

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 the qualified personnel properly gather and report the information and that the information submitted hereon is true and accurate. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER <i>David Noyes Operations Mgr.</i>	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		TELEPHONE	DATE
	<i>David Noyes</i>		508 830-8117 AREA Code NUMBER	07/18/2011 MM/DD/YYYY
TYPED OR PRINTED				

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME: ENG - PILGRIM NUCLEAR POWER
ADDRESS: 600 ROCKY HILL ROAD
PLYMOUTH, MA 02360

FACILITY: PILGRIM NUCLEAR POWER STATION
LOCATION: 600 ROCKY HILL ROAD
PLYMOUTH, MA 02360

ATTN: David Noyes, Operations Mang.

MA0003557
PERMIT NUMBER

010-A
DISCHARGE NUMBER

DMR Mailing ZIP CODE: 02360
MAJOR (SUBR S)

PLANT SERVICE COOLING WATER
External Outfall

No Discharge

MONITORING PERIOD
FROM 06/01/2011 TO 06/30/2011

PARAMETER	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	VALUE	UNITS	VALUE	VALUE	UNITS	VALUE			
Oxidants, total residual	*****	*****	*****	0.31	mg/L	0.69	0	02/01	GR
34044 1 0 Effluent Gross	*****	*****	*****	.5 MO AVG	mg/L	DAILY MX		Continuous	RCORDR
Flow, in conduit or thru treatment plant	13.7	MGD	*****	*****	*****	*****	0	99/99	ES
50050 1 0 Effluent Gross	19.4 MO AVG	Mgal/d	*****	*****	*****	*****		Continuous	ESTIMA

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER <i>David Noyes Operations Mgr.</i>	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT <i>David Noyes</i>	TELEPHONE NUMBER 508 830-8117	DATE 07/18/2011
TYPED OR PRINTED		AREA Code	MM/DD/YYYY MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

CONTINUOUS CHLORINATION OF SERVICE WATER SYSTEM MAY BE USED FOR MACROINVERTEBRATE CONTROL. FLOW RATE SHALL BE ESTIMATED FROM PUMP CAPACITY CURVES AND OPERATIONAL HOURS.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME: ENG - PILGRIM NUCLEAR POWER
ADDRESS: 600 ROCKY HILL ROAD
PLYMOUTH, MA 02360

FACILITY: PILGRIM NUCLEAR POWER STATION
LOCATION: 600 ROCKY HILL ROAD
PLYMOUTH, MA 02360

ATTN: David Noyes, Operations Mang.

MA0003557
PERMIT NUMBER

011-A
DISCHARGE NUMBER

DMR Mailing ZIP CODE: 02360
MAJOR (SUBR S)

MAKE UP WATER AND DEMINERALIZE
External Outfall

No Discharge

MONITORING PERIOD
MM/DD/YYYY TO MM/DD/YYYY
06/01/2011 TO 06/30/2011

PARAMETER	SAMPLE MEASUREMENT PERMIT REQUIREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	UNITS	VALUE	UNITS	VALUE	UNITS			
Solids, total suspended	00530 1 0 Effluent Gross	*****	*****	*****	*****	5.40	mg/L	0	01/Ba	GR
Flow, in conduit or thru treatment plant	50050 1 0 Effluent Gross	0.0099	MGD	0.0099	MGD	100 DAILY MX	mg/L	0	Once Per Batch	GRAB
		.015 MO AVG	Mgal/d	.06 DAILY MX	Mgal/d	*****	*****	0	Wh/Ds	ES
						*****	*****		When Discharging	ESTIMA

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision and that I am a duly licensed professional engineer, geologist, or chemist, and I am qualified to evaluate the information submitted. Based on my inquiry of the person or persons who furnished the information, and 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.

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER David Noyes Operations Mgr.	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT <i>David Noyes</i>	TELEPHONE 508 830-8117	DATE 07/18/2011
TYPED OR PRINTED		AREA Code NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)
SEE PAGE 5 OF PERMIT PARAGRAPH N FOR SODIUM NITRATE REPORTING REQUIREMENTS. ATTACH ALL RELATED REPORTS TO THIS FORM