



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

Stephen J. Bethay
Director, Nuclear Assessment

ENV 1.10-010

August 20, 2010

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

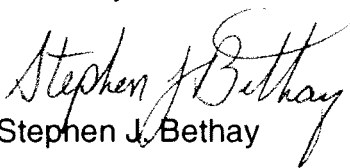
Subject: Discharge Monitoring Report — July 2010
NPDES Permit Number MA0003557

Dear Sir or Madam:

Enclosed is the July 2010 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 July 1 through 31, 2010, 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 July 2010 DMR
2. Discharge Monitoring Report (completed DMR forms)

ATTACHMENT 1 to Letter ENV 1.10-010

Summary — Additional Information for July 2010 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 scheduled to occur during this period.
- 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 28 days this month, for no more than 2 hours per day.

II. Summary and Notes of Discharge Report (continued)

- F. Thermal backwashing for macroinvertebrate control was performed on July 15. The pH of the water from discharge point #002 did not vary more than 0.5 standard units from that of ambient sea water. The average temperature of the water discharged during the thermal backwashing was 108.8°F and the maximum temperature was 113.3°F.

- G. There was a brief fish impingement incident at Pilgrim Station this month involving juvenile Alewife, which was previously reported to U.S. EPA and MDEP in an e-mail message dated July 29, 2010. The maximum impingement rate was 1061 fish/hour, which was observed during a screenwash on July 28 and the incident ended after approximately two hours. It appears that this impingement was not caused by any change in conditions related to Pilgrim Station, which was operating normally before and during this period, but was due to natural circumstances. Based on the number of fish involved, it is expected that this incident will not have a lasting effect on this species.

- H. In accordance with subparagraph A.1.o of Pilgrim's NPDES permit, removal of sand from concrete surfaces of the intake structure was performed July 20-30. Divers used a submersible pump to remove approximately 368 cubic yards of sand that presented an obstacle to equipment operation. This sand was disposed of on land within the site boundary.

ATTACHMENT 2
to Letter ENV1.10-010

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: 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

001-1
DISCHARGE NUMBER

DMR Mailing ZIP CODE: 02360
MAJOR (SUBR S)
CONDENSER COOLING WATER
External Outfall

MONITORING PERIOD
MM/DD/YYYY TO MM/DD/YYYY
07/01/2010 TO 07/31/2010

No Discharge

PARAMETER	QUANTITY OR LOADING		QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	VALUE	UNITS	VALUE	UNITS	VALUE	UNITS			
Temperature, water deg. fahrenheit	*****	*****	*****	*****	99.0	°F	0	99/99	RC
00011 1 0 Effluent Gross	*****	*****	*****	*****	102 DAILY MX	deg F		Continuous	RCORDR
Oxidants, total residual	*****	*****	0.04	*****	0.09	mg/L	0	Wh/Ds	GR
34044 1 0 Effluent Gross	*****	*****	*****	*****	1 DAILY MX	mg/L		When Discharging	GRAB
Flow, in conduit or thru treatment plant	444.2	MGD	446.4	MGD	*****	*****	0	99/99	ES
50050 1 0 Effluent Gross	447 MO AVG	Mgal/d	510 DAILY MX	*****	*****	*****		Continuous	ESTIMA
Temp. diff. between intake and discharge	*****	*****	*****	*****	28.2	°F	0	99/99	CA
61576 1 0 Effluent Gross	*****	*****	*****	*****	32 DAILY MX	deg F		Continuous	CALCTD

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 or geologist in the State of Massachusetts, and I am not providing this information or any attachments in lieu of an engineering or geological stamp. I understand that any false, fictitious or fraudulent statements or information furnished herein or any attachments which I know to be false, fictitious or fraudulent are prohibited and subject to the criminal penalties provided by law, and I am aware that any such statements or information may be subject to the civil penalties provided by law.

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
David Noyes Operations Mgr.
TYPED OR PRINTED

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT
David Noyes

TELEPHONE
508 830-8117
AREA Code NUMBER

DATE
08/19/2010
MM/DD/YYYY

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

PH SHALL NOT VARY MORE THAN 0.5 PHSTANDARD 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

No Discharge

FROM 07/01/2010 **TO** 07/31/2010
MONITORING PERIOD
MM/DD/YYYY

PARAMETER	QUANTITY OR LOADING		QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Temperature, water deg. fahrenheit	113.3	°F	0	99/99	RC
00011 1 0 Effluent Gross	120 DAILY MX	deg F		Continuous	RCORDR
Flow, in conduit or thru treatment plant	MGD	.....	.....	.....	.....	0	Wh/Ds	ES
50050 1 0 Effluent Gross	Mgal/d	.....	.....	.....	.....		When Discharging	ESTIMA

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER David Noyes Operations Mgr. TYPED OR PRINTED	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT 	TELEPHONE	DATE
		508 830-8117	08/19/10
		AREA Code	NUMBER
			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

MONITORING PERIOD
MM/DD/YYYY TO MM/DD/YYYY
07/01/2010 TO 07/31/2010

No Discharge

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	0.9	MGD	*****	*****	*****	*****	0	01/01	ES
50050 1 0 Effluent Gross	4.1 MO AVG	Mgal/d	*****	*****	*****	*****		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 that qualified personnel properly gather and evaluate the information. Based on my inquiry of the person or persons who furnished the information, and on the basis 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 <i>David Noyes Operations Mgr.</i>	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT <i>David Noyes</i>		TELEPHONE 508 830-8117	DATE 08/19/2010
	TYPED OR PRINTED		AREA Code NUMBER	NUMBER 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 FORM INTAKE STRUCTURES TO PREVENT REIMPMINGEMENT.

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

FROM 07/01/2010 TO 07/31/2010
MONITORING PERIOD
MM/DD/YYYY MM/DD/YYYY

No Discharge C

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

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER David Noyes Operations Mgr.	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT <i>David Noyes</i>	TELEPHONE	DATE
		508 830-8117	08/19/2010
TYPED OR PRINTED		AREA CODE	NUMBER
			MM/DD/YYYY

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	010-A
PERMIT NUMBER	DISCHARGE NUMBER
MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
07/01/2010	07/31/2010
FROM	TO

DMR Mailing ZIP CODE: 02360
MAJOR (SUBR S)
PLANT SERVICE COOLING WATER
External Outfall
No Discharge

PARAMETER	QUANTITY OR LOADING		QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	VALUE	UNITS	VALUE	UNITS	VALUE	UNITS			
Oxidants, total residual	*****	*****	*****	*****	0.58	mg/L	0	02/01	GR
34044 1 0 Effluent Gross	*****	*****	*****	*****	1 DAILY MX	mg/L		Continuous	RCORDR
Flow, in conduit or thru treatment plant	14.4	MGD	*****	*****	*****	*****	0	99/99	ES
50050 1 0 Effluent Gross	19.4 MO AVG	Mgal/d	*****	*****	*****	*****		Continuous	ESTIMA

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE	DATE
David Noyes Operations Mgr.	<i>David Noyes</i>	508 930-8117	08/19/2010
TYPED OR PRINTED		AREA Code NUMBER	MANDATORY

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	011-A
PERMIT NUMBER	DISCHARGE NUMBER
MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
07/01/2010	07/31/2010
FROM	TO

DMR Mailing ZIP CODE: 02360
MAJOR (SUBR S)
MAKE UP WATER AND DEMINERALIZE
External Outfall
No Discharge C

PARAMETER	QUANTITY OR LOADING		QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
	VALUE	UNITS	VALUE	UNITS	VALUE	UNITS			
Solids, total suspended	.....	.....	.....	.....	.....	.....	01/Ba	GR
00530 1 0 Effluent Gross	.....	.....	30 MO AVG	100 DAILY MX	.....	.....	Once Per Batch	GRAB
Flow, in conduit or thru treatment plant	.....	MGD	.....	.....	.....	.....	Wk/Ds	ES
50050 1 0 Effluent Gross	.015 MO AVG	Mgal/d	.06 DAILY MX	.....	.....	.....	When Discharging	ESTIMA

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	TELEPHONE	DATE
David Noyes Operations Mgr.	508 830-8117	07/19/2010
TYPED OR PRINTED	AREA Code NUMBER	MM/DD/YYYY
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		
<small>I certify under penalty of law that this document and all attachments were prepared under my direction or supervision by a qualified personnel property gater and holder of the NPDES permit. Based on the information submitted, I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.</small>		

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