



BOSTON EDISON

25 Braintree Hill Office Park
Braintree, Massachusetts 02184

E. J. Wagner
Vice President
Nuclear Engineering

BEC0 5.92-038
March 18, 1992

NPDES Program Operations Section (WCP)
Environmental Protection Agency
P. O. Box 8127
Boston, MA 02114

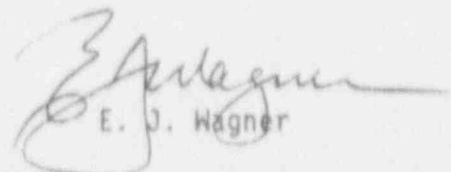
Massachusetts Division of Water Pollution Control
Lakeville Hospital
Lakeville, MA 02346

DISCHARGE MONITORING REPORT

Dear Sirs:

Enclosed is the Discharge Monitoring Report for Pilgrim Nuclear Power Station (PNPS), NPDES Permit Number MA0003557 (Federal) and Number 359 (State).

The period covered by this report is February 1992.



E. J. Wagner

RDA/cab/6438

Attachments: 1. Summary
2. Discharge Monitoring Report

cc: U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

U. S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406

Senior NRC Resident Inspector
Pilgrim Nuclear Power Station

9203240225 920229
PDR ADDCK 05000293
R PDR

IE25
1/1

SUMMARY

PILGRIM I DISCHARGE MONITORING REPORT

In accordance with the Federal Clean Water Act, as amended (33USC 1251 et seq: the "CWA"), 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 for the period February 1992.

I. Discharge Points Covered in this Report:

<u>Discharge Point</u>	<u>Discharge Identification</u>
001	Condenser Cooling Water
002	Thermal Backwash for Biofouling Control
003	Intake Screen Wash
004, 005, 006, and 007	Yard Drains (April and September)
010	Service Cooling Water
011	Makeup Water and Demineralizer Waste Discharge

II. Summary and Notes on Discharge Report

- A. The flow at points 001 and 010 are calculated from system pump capacity and are equal to the total for all pumps in each system running at full capacity for a 24-hour period. The flow at point 011 is measured by noting sump levels before and after discharge. Flow at point 002 is a conservative figure obtained by calculating flow if backwashing took place for 24 hours. Flow at point 003 is calculated from system pump capacity and mean operating time.
- B. The temperatures at points 001 and 002 are measured by resistance temperature detectors (RTD's).
- C. Periodically, total residual chlorine (TRC) concentration in the service cooling water (010) exceeds Permit requirements (0.50 ppm daily average TRC and 1.00 ppm daily maximum TRC) prior to mixing with any other stream, primarily because of the number of service water pumps in operation. Chlorine injection levels are lowered as a corrective measure. The dilution provided by the PNPS circulating water flow keeps total residual chlorine concentrations discharged to Cape Cod Bay below the NPDES Permit limit of 0.1 ppm.

- D. For stormwater outfalls 004, 005, 006 and 007, Sigma 800 SL Portable Composite Samplers are utilized. The samplers are equipped with a "liquid level activator" that commences the sampling when the liquid reaches a predetermined level. This assures a sample is taken "within the first hour of the start of a significant storm event." The intake and collection assemblies of the samplers conform to U.S. EPA requirements for collecting oil and grease samples. No additional inputs to these stormwater outfalls occur downstream of the composite samplers' sampling locations.
- E. Intake traveling water screens were operated without dechlorination pumps operating on February 26 (1).
- F. The following boron and sodium nitrite discharges (ppm) occurred in February 1992 from discharge point #001. All discharges were below NPDES Permit limits prior to entering Cape Cod Bay.

<u>Date</u> <u>Discharged</u>	<u>Gallons</u> <u>Discharged</u>	<u>Concentration</u> <u>Before Discharge</u>	<u>Concentration</u> <u>Discharged</u>
Boron			
2/03	12,692	<0.05	<0.001
2/14	9,352	0.25	<0.001
2/28	12,692	<0.05	<0.001
Sodium Nitrite			
2/03	12,692	<20.00	<0.030
2/14	9,352	35.90	0.050
2/28	12,692	49.30	0.060

- G. Sawdust was applied to seek and seal PNPS condenser leaks on February 18 (60 pounds), 19 (540 pounds), 20 (300 pounds), 21 (600 pounds) and 23 (540 pounds).

ATTACHMENT 2 TO BECO LETTER 5.92-038

DISCHARGE MONITORING REPORT

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

NAME BOSTON ED 45 PILGRIM PLANT

ADDRESS ROCKY HILL ROAD

WFO 11

PLYMOUTH

MA 02360

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE LIMITATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

MA0003537

PERMIT NUMBER

001 1

DISCHARGE NUMBER

MAJOR

Form Approved

ACMP No. 2000-0004

Final Approval expires 12/30/91

INSER COOLING WATER

MONITORING PERIOD

FROM YEAR 92 MO 02 DAY 01 TO YEAR 92 MO 02 DAY 02

DISCHARGE

ad instructions for completing this form.

ATTN: E.S. KRAFT, PLANT MANAGER

PARAMETER (32-37)	SAMPLE MEASUREMENT	QUANTITY OR LOADING (34-35)			MINIMUM (38-39)			NO. EX	FREQUENCY OF ANALYSIS (42-43)	SAMPLE TYPE (44-45)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	MAXIMUM	UNITS			
TEMPERATURE, WATER DEG. FAHRENHEIT 0011 1 0 0	SAMPLE MEASUREMENT	*****	*****	()	*****	*****	5.8	(15)	OF	99/99 RC
REFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	*****	*****	102 DLY MAX	DEG.F		CONTAINER UOUS
OXIDANTS, TOTAL RESIDUAL 34044 1 0 0	SAMPLE MEASUREMENT	*****	*****	()	*****	0.02	0.03	(19)		0 WH/DS GR
REFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	*****	0.1 MATH AVG	0.1 DLY MAX	MG/L		WHEN GRAB DISCH
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 1 0 0	SAMPLE MEASUREMENT	446.4	446.4	(05)	*****	*****	*****	()		0 99/99 ES
REFLUENT GROSS VALUE	PERMIT REQUIREMENT	447.0 MATH AVG	510.0 DLY MAX	MGD	*****	*****	*****	*****		CONTAINER UOUS
TEMP. DIFF. BETWEEN INTAKE AND DISCHARGE 61576 1 0 0	SAMPLE MEASUREMENT	*****	*****	()	*****	*****	29.1	(15)	OF	0 99/99 CA
REFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	*****	*****	32 DLY MAX	DEG.F		CONTAINER UOUS
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

E.S. KRAFT
PLANT MANAGER

TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND 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 SEE 18 USC § 1001 AND 33 USC § 1314. (Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.)

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE

DATE

508 747-8100 92 03 06

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

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

EPA Form 3320-1 (Rev. 5-88) (If necessary, additional sheets may be used.)

(REPLACES EPA FORM 746 WHICH MAY NOT BE USED)

00354/911231-1539

PAGE 1 OF

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

NAME ROSTON RD 31 PILGRIM PLANT

ADDRESS ROCKY HILL ROAD

RD #1

PLYMOUTH

MA 02360

FACILITY

LOCATION

ATTN: E.S. KRAFT, PLANT MANAGER

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

(2-16)

(17-19)

MA0003557

PERMIT NUMBER

002 1

DISCHARGE NUMBER

MONITORING PERIOD

FROM YEAR 92 MO 02 DAY 01 TO YEAR 92 MO 02 DAY 29
(20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

MAJOR Form Approved
(SUBR S OMB No. 2040-0004)
F - FINAL Approval expires 6-30-91.
THERMAL BACKWASH

*** NO DISCHARGE ☒ ***

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (54-67)				NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
TEMPERATURE, WATER DEG. FAHRENHEIT 00011 1 0 0	SAMPLE MEASUREMENT	*****	*****	()	*****	*****	no discharge	(15)	0	99/99	RC
EFFLUENT GROSS VALUE FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50750 1 0 0	PERMIT REQUIREMENT	*****	*****	****	*****	*****	120 DLY MAX	DEG.F			CONTINUOUS
EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	no discharge	(03)	*****	*****	*****	****	0	WH/DS	ES
	PERMIT REQUIREMENT	*****	255-G DAILY MX	MGD	*****	*****	*****	****			WHEN ESTIMATED DISCH
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
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	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

E.S. KRAFT
PLANT MANAGER

TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND 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 SEE 18 USC § 1001 AND 33 USC § 1319. (Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.)

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE

DATE

908 747-8100

92 03 06

AREA CODE

NUMBER

YEAR

MO

DAY

COMMENT 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 TH

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)
NAME BOSTON ED #1 PILGRIM PLANT
ADDRESS ROCKY HILL ROAD
RD #1
PLYMOUTH MA 02360
FACILITY _____
LOCATION _____

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

(2-16) **MA0003557** (17-19) **003 A**
 PERMIT NUMBER DISCHARGE NUMBER

MAJOR Form Approved.
 (SUBR S) OMB No. 2040-0004.
 F - FINAL Approval expires 6-30-91.
 INTAKE SCREEN WASH

MONITORING PERIOD
 FROM YEAR MO DAY TO YEAR MO DAY
 92 02 01 92 02 29
 (20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

*** NO DISCHARGE ***
 NOTE: Read instructions before completing this form.

ATTN: E.S. KRAFT PLANT MANAGER

PARAMETER (32-37)		(1 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (58-65)			NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-67)	SAMPLE TYPE (68-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
FLOW IN CONDUIT OR THRU TREATMENT PLAN SECTION 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	0.41	2.02	(03)	*****	*****	*****			
	PERMIT REQUIREMENT	2.1 MONTH AVG	2.1 DLY MAX	MGD	*****	*****	*****	****		0 01/01 ES DAILY ESTIMATE
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER <u>E.S. KRAFT</u> PLANT MANAGER	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY KNOWLEDGE 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 SEE 18 USC § 1001 AND 33 USC § 1319. (Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.)	SIGNATURE OF PRINCIPAL EXECUTIVE <u>W. J. McLean</u>	TELEPHONE 508 747-8100	DATE 92 03 06		
TYPED OR PRINTED		OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO

COMMENT 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 INTAKE SCREEN SHOULD BE RETURNED TO WATER
 SUFFICIENTLY DISTANT FROM INTAKE STRUCTURES TO PREVENT REIMPINGEMENT.

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

NAME BOSTON D-11 PILGRIM PLANT

ADDRESS ROCKY HILL ROAD

WFO #1

PLYMOUTH MA 02360

FACILITY

LOCATION

ATTN: E.S. KRAFT PLANT MANAGER

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

(12-16)

MAN003557

PERMIT NUMBER

(17-19)

010 A

DISCHARGE NUMBER

MAJOR

Form Approved.

(SUBR 5) OMB No. 2040-0004.

F - FINAL Approval expires 6-30-91.

PLANT SERVICE COOLING WATER

MONITORING PERIOD

FROM YEAR 92 MO 02 DAY 01 TO YEAR 92 MO 02 DAY 29
(20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

*** NO DISCHARGE ***

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (58-65)			NO. EX (62-65)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
OXIDANTS, TOTAL RESIDUAL 34044 1	SAMPLE MEASUREMENT	*****	*****	()	*****	0.34	0.74	(19)	99/99	RC
EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	*****	0.5	1.0	MG/L	CONTINUED	RECORD
FLOW IN CONDUIT OR THRU TREATMENT PLANT 50050 1 0 0	SAMPLE MEASUREMENT	4.45	*****	(03)	*****	*****	*****	()	99/99	ES
EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	19.4	*****	MGD	*****	*****	*****	****	CONTINUED	ESTIMATE
		MONTH AVG		MGD				****		
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
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	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

E.S. KRAFT
PLANT MANAGER

TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND 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 SEE 18 USC § 1001 AND 33 USC § 1319. (Penalties under these statutes may include fines up to \$100,000 and/or maximum imprisonment of between 6 months and 5 years.)

W. Sluzewski
SIGNATURE OF PRINCIPAL EXECUTIVE
OFFICER OR AUTHORIZED AGENT

TELEPHONE

DATE

508 747-8100 92 03 06
AREA CODE NUMBER YEAR MO DAY

COMMENT 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.

