



BOSTON EDISON

25 Braintree Hill Office Park
Braintree, Massachusetts 02184

E. J. Wagner
Vice President
Nuclear Engineering

September 16, 1992
BECO 5.92-116

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

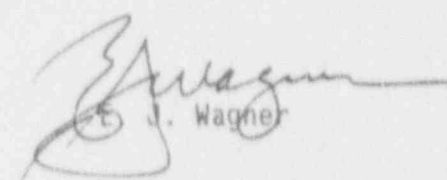
Massachusetts Division of Water Pollution Control
Lakeville Hospital
Lakeville, MA 02346

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 August 1992.



E. J. Wagner

RDA/cab/PNPSDMR

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 1
475 Allendale Road
King of Prussia, PA 19406

Senior NRC Resident Inspector
Pilgrim Nuclear Power Station

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R PDR

IE48
110

ATTACHMENT 1 TO BECO LETTER 5.92-116

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 August 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 of 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 (BECe Letter 5.92.005). No additional inputs to these stormwater outfalls occur downstream of the composite samplers' sampling locations.
- E. Intake traveling water screens were operated with dechlorination pumps operating at all times.
- F. Sawdust was applied to seek and seal PNPS condenser leaks on August 1(210 pounds), 2(840 pounds), 3(390 pounds), 4(120 pounds), 5(270 pounds), 6(60 pounds), 22(240 pounds), 26(60 pounds), 29(180 pounds) and 31(630 pounds).
- G. The following boron and sodium nitrite discharges (ppm) occurred in August 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			
8/04	10,688	<1.0	<0.001
8/08	8,851	<1.0	<0.001
8/20	10,020	<1.0	<0.001
8/27	11,356	<1.0	<0.001
Sodium Nitrite			
8/04	10,688	<30	<0.039
8/08	8,851	<30	<0.039
8/20	10,020	<30	<0.039
8/27	11,356	<30	<0.039

- H. On August 10, 1992 a telephone call was made to U.S.EPA to inform them of a discharge, from a neutralizing sump tank, that exceeded the PNPS NPDES Permit limit of 100 ppm for total suspended solids (TSS), prior to mixing with other streams. The discharge occurred on August 4, 1992 and the TSS discharged was 450 ppm. The addition of sodium hydroxide to the tank to control pH level was the causative factor (BECe Memo #CH92-175). The dilution of two circulating water pumps resulted in a final discharge to Cape Cod Bay of significantly less than 100 ppm TSS.
- I. At 1000 on August 6, 1992 PNPS power was reduced after the delta T in the discharge canal exceeded the NPDES Permit limit of 32°F, and was recorded reaching 32.2°F.

ATTACHMENT 2 TO BECO LETTER 5.92-116

DISCHARGE MONITORING REPORT

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

NAME WILSON & WILSON PILLBRIEN PLANT

ADDRESS WILSON HILL ROAD

MA 02360

FACILITY

LOCATION

DATE: 1-15-81 KRAFT PLANT MANAGER

PARAMETER (32-37)

TEMPERATURE, WATER

TEMP. FAHRENHEIT

0-11 1 0 0

EFFLUENT GROSS VALUE

OXIDANTS, TOTAL

0.0000

3-1-44 1

EFFLUENT GROSS VALUE

FLOW, IN CONDUIT OR

THRU TREATMENT PLANT

50000 1 0 0

EFFLUENT GROSS VALUE

TEMP. DIFF. BETWEEN

INTAKE AND DISCHARGE

61576 1 0 0

EFFLUENT GROSS VALUE

SAMPLE MEASUREMENT

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NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

12/79

MA0002557

PERMIT NUMBER

MONITORING PERIOD

YEAR 92 MO 01 DAY 01

YEAR 92 MO 08 DAY 31

FROM (12/21) (12/23) (24/25)

TO (12/25) (12/26) (12/31)

QUANTITY OR LOADING (34-35)

AVERAGE (46-51)

MINIMUM (46-51)

MAXIMUM (46-51)

UNITS (46-51)

QUALITY OR CONCENTRATION (54-61)

AVERAGE (54-61)

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UNITS (54-61)

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MAJON Form Approved

(SUN) 5 XOMB No. 2040-0004

F - FINAL Approval expires 6-30-91

CONDENSER COOLING WATER

*** NO DISCHARGE ***

NOTE: Read instructions before completing this form.

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 SUFFICIENT 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 \$250,000 and/or maximum imprisonment of between 6 months and 5 years.)

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
E. S. KRAFT
PLANT MANAGER

TYPED OR PRINTED

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 MEN FO

R BORON AND SODIUM NITRATE REPORTING REQUIREMENTS. ATTACH ALL RELATED REPORTS TO THIS FORM. A BARRIER

TERMINAL AND OF DISCHARGE FANAL AT ALL TIMES.

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PAGE 1 OF 1

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

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ADDRESS 003 A

PERMIT NUMBER

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LOCATION

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NATION: POLLUTANT DISCHARGE/ELIMINATION SYSTEM: NPDES

DISCHARGE MONITORING REPORT DMR

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MAJOR: Form Approved

(SUBN 5) XOMB No. 2040-0004

F - FINAL Approval expires 6-30-91

INTAKE SCREEN WASH

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PARAMETER (32-37)

FLOW IN CONDUIT OR

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EFFLUENT GROSS VALUE

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

NAME JOHN D. J. PILGRIM PLANT
ADDRESS ROCKY HILL ROAD
RD. 41

CITY PLYMOUTH STATE MA ZIP 02360

FACILITY

LOCATION

ATTN: E.S. KRAFT PLANT MANAGER

PARAMETER (32-37)

OXYGEN TOTAL

RESIDUAL

34.46 1 0

EFFLUENT GROSS VALUE

FLOW THROUGH TREATMENT PLANT

50150 1 0 0

EFFLUENT GROSS VALUE

FROM

AVERAGE

MINIMUM

MAXIMUM

UNITS

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TO

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MAXIMUM

UNITS

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QUALITY OR CONCENTRATION (34-52)

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MAXIMUM

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NO. EX. ANALYSIS (54-57)

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