BOSTON EDISON 25 Braintree Hill Park Braintree, Massachusetts 02184 June 17, 1993 W. C. Rothert General Manager Technical BECo 5.93.073 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 May 1993. RDA/DMR/nas Attachments: 1. Summary 2. Discharge Monitoring Report U. S. Nuclear Regulatory Commission CC: 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 JE23 1 220020 9306240160 930617 PDR ADDCK 05000293

ATTACHMENT 1 TO BECO LETTER 5.93.073

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 May 1993.

I. Discharge Points Covered in this Report

Di:	scharge Point	Discharge Identification									
	001	Condenser Cooling Water									
	002	Thermal Backwash for Biofouling Control									
	003	Intake Screen Wash									
	004, 005, 006, and 007	Yard Drains (May 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 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 (USEPA letter to BECo dated 1/7/92). 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 May 26 (60 pounds), 29 (780 pounds), 30 (900 pounds) and 31 (450 pounds).
- G. The following boron and sodium nitrite discharges (ppm) occurred in May 1993 from discharge point #001. All discharges were below NPDES Permit limits prior to entering Cape Cod Bay.

Gallons Discharged	Concentration Before Discharge	Concentration Discharged
Box	ron	
14,195 10,020	5.0 2.6	0.007
Sodium	Nitrite	
14,195 10,020	1.5	0.002
	Discharged Bor 14,195 10,020 Sodium 14,195	Boron

H. The Pilgrim Station discharge canal fish barrier net was installed on May 24, 1993 for the first time since its requirement was temporarily rescinded on December 30, 1992 (BECo Letter 5.92.180). ATTACHMENT 2 TO BECO LETTER 5.93.073
DISCHARGE MONITORING REPORT

Facility Name/Location if different; MAMS BOSTON FO \$1 PI	DISCHARGE MONITORING REPORT (DMR) (2-16) MAJOR Form Approved												
ADDRESSROCKY HILL ROAD		AUL	MADO	03557	(SUBR S) OMB No. 2040-0004								
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PLYMOUTH		MA 02360		MONI	TORING BERI	00	CONDENSER C	OOLING	WAT	TER	2		
PACILITY			YEAR		TORING PERIO	MO DAY			-				
LOCATION			FROM 93		1 10 93	05 31	*** NO DISC		2 100 100	***			
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[REPLACES EPA FORM T-80 WHICH MAY NOT BE USED.]

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