NRC FORM 366 (7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

CONTROL BLOCK: | | | | | | | (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

Line	Field	Value
0 1	LICENSEE CODE (2)	M A P P S 1
	LICENSE NUMBER (3)	0 0 - 0 0 0 0 0 - 0 0
	LICENSE TYPE (4)	4 1 1 1 1
	CAT (5)	
0 1 (CON'T)	REPORT SOURCE (6)	L
	DOCKET NUMBER (7)	0 5 0 - 0 2 9 3
	EVENT DATE (8)	1 0 0 4 8 2
	REPORT DATE (9)	1 1 0 3 8 2

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 On 10/4/82, during power increase from hot shutdown, reactor water conductivity was
0 3 observed to be above T.S. limits. This event was noted after the 'A' condensate de-
0 4 mineralizer was placed in service. At 0300 the water was analyzed to be 20 mmho/cm
0 5 and 4.5 PH. A plant shutdown was initiated and the NRC notified via ENS. The "A" unit
0 6 was isolated and removed from service. This event caused no threat to the public
0 7 health and safety.
0 8

Line	Field	Value
0 9	SYSTEM CODE (11)	C G
	CAUSE CODE (12)	X
	CAUSE SUBCODE (13)	Z
	COMPONENT CODE (14)	O E M I N X
	COMP. SUBCODE (15)	Z
	VALVE SUBCODE (16)	Z
(17) LER/RO REPORT NUMBER	EVENT YEAR	8 2
		—
	SEQUENTIAL REPORT NO.	0 4 5
		/
	OCCURRENCE CODE	0 3
	REPORT TYPE	L
		—
	REVISION NO.	0
	ACTION TAKEN (18)	E
	FUTURE ACTION (19)	X
	EFFECT ON PLANT (20)	B
	SHUTDOWN METHOD (21)	A
	HOURS (22)	0 0 0 0
	ATTACHMENT SUBMITTED (23)	Y
	NPRD-4 FORM SUB. (24)	N
	PRIME COMP. SUPPLIER (25)	A
	COMPONENT MANUFACTURER (26)	I 0 2 0

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 No cause has been found as of this date. The initial evaluation of this event was a
1 1 resin intrusion as reported in previous LER's (Ref: 82-31 and 80-43). However, in-
1 2 spection of the demineralizer internals disclosed no evidence of damage which could
1 3 result in significant resin intrusion. Cause determination is still under investiga-
1 4 tion. See Attachment for further details.

Line	Field	Value
1 5	FACILITY STATUS (28)	C
	% POWER (29)	0 2 5
	OTHER STATUS (30)	NA
	METHOD OF DISCOVERY (31)	A
	DISCOVERY DESCRIPTION (32)	Operator observation
1 6	ACTIVITY RELEASED (33)	Z
	CONTENT OF RELEASE (34)	Z
	AMOUNT OF ACTIVITY (35)	NA
	LOCATION OF RELEASE (36)	NA
1 7	PERSONNEL EXPOSURES NUMBER (37)	0 0 0
	TYPE (38)	Z
	DESCRIPTION (39)	NA
1 8	PERSONNEL INJURIES NUMBER (40)	0 0 0
	DESCRIPTION (41)	NA
1 9	LOSS OF OR DAMAGE TO FACILITY TYPE (42)	Z
	DESCRIPTION (43)	NA
2 0	PUBLICITY ISSUED (44)	N
	DESCRIPTION (45)	NA
	NRC USE ONLY	

8211150254 821103
PDR ADOCK 05000293
S PDR

NAME OF PREPARER G. G. Whitney PHONE: 617-746-7900

GPO 917-928

BOSTON EDISON COMPANY
PILGRIM NUCLEAR POWER STATION
DOCKET NO. 50-293

Attachment to LER # 82-045

On 10/4/82 at 0230, while increasing power from a hot shutdown, the reactor water conductivity began to increase after the "A" condensate demineralizer was put into service.

The Technical Specification (section 3.6.B) limit of 10 μmho/cm was exceeded and at 0300 the analysis of the water indicated 20 μmho/cm at 4.5 Ph. A plant shutdown was initiated and the NRC notified via ENS.

The immediate corrective action was to remove the "A" condensate demineralizer from service and to return the "B" unit to service. In addition, the APRM and rod block flow biased scram settings were adjusted per procedure 9.1 to compensate for the apparent non-conservative recirculation flow versus speed indications referenced in LER 82-31.

When the conductivity was again below the 10 μmho/cm limit, the plant shutdown was terminated.

On 10/5/82, while increasing power from the high conductivity event on 10/4/82, the 10 μmho/cm limit was again exceeded when the conductivity increased from 7.55 μmho/cm to 10.97 μmho/cm. Again, a plant shutdown was initiated, the NRC notified and compensatory measures taken. The plant shutdown was terminated when the water again was within limits.

Initial investigation and evaluation indicated that the event originated as the result of a resin intrusion as reported in previous LER: (82-31 and 80-43). However, a visual inspection of the "A" demineralizer, conducted during a scheduled plant maintenance outage, indicated no visible damage to the laterals and no other source of significant resin release from the "A" demineralizer was found. A small quantity of resin beads and fines was found in the post strainer whose screen was found to be not properly secured.

No cause has been determined as of this time. The investigation into the source of this high conductivity event is continuing and an up-to-date report will be necessary.

On 10/24/82, while increasing power from the previously mentioned maintenance outage, both recirculation pumps again exhibited higher than expected core flow versus pump speeds. This event required the resetting of APRM flow bias factors per procedure 9.1, has been linked to the 10/4/82 event and will be factored into the investigation.