

CONTROL BLOCK:

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

1	8	A	9	P	10	P	11	S	12	1	13	2	14	0	15	0	16	0	17	0	18	0	19	0	20	0	21	0	22	0	23	0	24	0	25	3	26	4	27	1	28	1	29	1	30	1	31	1	32	1	33	4	34	1	35	1	36	1	37	1	38	1	39	4	40	1	41	1	42	1	43	1	44	1	45	1	46	1	47	1	48	1	49	1	50	1	51	1	52	1	53	1	54	1	55	1	56	1	57	1	58	1	59	1	60	1	61	1	62	1	63	1	64	1	65	1	66	1	67	1	68	1	69	1	70	1	71	1	72	1	73	1	74	1	75	1	76	1	77	1	78	1	79	1	80	1	81	1	82	1	83	1	84	1	85	1	86	1	87	1	88	1	89	1	90	1	91	1	92	1	93	1	94	1	95	1	96	1	97	1	98	1	99	1	100	1
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1	8	REPORT SOURCE	L	9	G	10	0	11	5	12	0	13	-	14	0	15	2	16	9	17	3	18	7	19	1	20	1	21	2	22	1	23	7	24	8	25	B	26	1	27	2	28	0	29	5	30	7	31	8	32	9
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EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

On 11/21/78, PNPS management was informed of QA Audit 78-18, which identified an occurrence that was contrary to limiting conditions for operations as specified in T.S. Section 3.2.C.1 and Table 3.2.C. On 10/30/78 the number of operable SRMs was reduced below the minimum required when SRM "A" was jumpered to eliminate problems with the downscale rod block. A reactor startup was in progress and SRM "D" was already bypassed because of a failed detector.

9	8	SYSTEM CODE	I	9	A	10	11	CAUSE CODE	A	11	12	CAUSE SUBCODE	C	12	13	COMPONENT CODE	I	13	N	14	S	14	T	14	R	14	U	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
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CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

This event occurred when maintenance and repair personnel inadvertently jumpered out the entire "A" SRM trip logic instead of only the downscale trip as approved by ORC. Station procedure 3.M.1-3 is being revised to require ORC approval of the specific location of jumper terminals to ensure that only those functions which are not required are affected.

5	8	FACILITY STATUS	C	9	78	10	0	11	0	12	0	13	0	14	29	15	OTHER STATUS	N.A.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
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BOSTON EDISON COMPANY
PILGRIM NUCLEAR POWER STATION
DOCKET NO. 50-293

Attachment to LER 78-051/01T-0

Event Description

On October 24, 1978, Surveillance Procedure 8 M.2-3.3 (Source Range Monitor) was conducted in preparation for reactor startup following Diesel Generator "B" repairs. This surveillance verified operability of SRMs A, B & C. SRM "D" was inoperable with a failed detector (Maintenance Request issued September 9, 1978).

At 1900 hours on October 27, 1978 the reactor was made critical and at 1910 hours, while withdrawing SRMs, the SRM "A" circuit indicated full withdrawal, however, CPS were pegged high causing a rod block. The IRMs were upranged as power increased and when all IRMs were on range 8, the rod block cleared. I&C personnel entered the drywell at 2015 hours and discovered that the retract mechanism, coupling had separated preventing retraction of the detector. Repairs were completed at 2115 hours and SRM "A" was again operable. Reactor Startup continued and the generator was synchronized to the system at 0344 hours on October 28, 1978.

At 0530 hours on October 28, 1978, the main generator was tripped because of voltage problems. The trouble was identified in the exciter ground brushes, corrected and the unit synchronized to the system at 1227 hours on October 28, 1978.

On October 30, 1978 at 0516 hours the reactor scrammed due to APRM Hi Hi as a result of testing turbine control valves. Preparations for scram recovery were initiated immediately. At approximately 0600 hours, after stabilizing balance of plant, it was observed that a rod block existed in the RPS. Going through the process of elimination it was deduced that SRM "A" was causing the rod block, since SRM "A" was indicating downscale. I&C personnel were called in to correct the situation, however, their efforts were unsuccessful.

Reviewing the Technical Specifications and Station Procedures, the Watch Engineer concluded that only two SRMs were required to have greater than 3 CPS (T.S. Section 3.3.B.4) and requested an ORC Meeting to approve jumpering SRM "A".

A special ORC Meeting was held to discuss placing a jumper in the Reactor Manual Control System to bypass the downscale on SRM "A".

Since the downscale rod block functions are not required per Specification 3.2.C.1, Table 3.2.C, the ORC concluded that the jumper was permissible and approved installation of the jumper for this startup.

The actual placement of the jumper, however, negated the entire "A" SRM trip logic instead of only the downscale trip function. This reduced the number of operable SRM Rod Block functions for SRM Detector Hot in Startup Position and SRM Upscale below the minimum required by Table 3.2.C.

Cause and Corrective Action

This event occurred when maintenance and repair personnel inadvertently jumpered out the entire "A" SRM trip logic instead of only the downscale trip as approved by ORC.

To prevent recurrence of events of this nature, Station Procedure 3.M.1-3, LIFTED WIRE AND TEMPORARY JUMPER, is being revised to require the ORC review the specific need for and location of the jumper/lifted wire. In addition, the ORC Chairman must specify on the request form the reasoning which permits bypassing a function subject to the Technical Specifications and provide final approval of the request.

Corrective action to prevent recurrence of this specific event has been addressed in that a meeting of station management was held to establish a contingency plan should an unscheduled outage occur. This contingency plan provides direction for the Watch Engineer to ensure that the required number of SRMs are operable prior to attempting a reactor startup. Station startup procedures will be revised to more clearly define the neutron monitoring instrument requirements.

In addition to these actions, all station personnel directly involved in the placement of and/or approval of a jumper or the lifting of an electrical lead will be required to review this LER and the revisions to 3.M.1-3 and document that review.