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SUBJECT: LER 89-014-00:on 891123,Tech Spec surveillance requirement missed due to deficient administrative guidance.
W/8 ltr.

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TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

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December 21, 1989

United States Nuclear Regulatory Commission
Document Control Desk
Rockville, Maryland 20852

Operating License DPR-58
Docket No. 50-315

Document Control Manager:

In accordance with the criteria established by 10 CFR 50.73 entitled Licensee Event Reporting System, the following report is being submitted:

89-014-00

Sincerely;

A. Alan Blind

A.A. Blind
Plant Manager

AAB:clw

Attachment

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NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/88

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
D. C. Cook Nuclear Plant - Unit One	0 5 0 0 0 3 1 5	1 OF 0 4

TITLE (4) Technical Specification Surveillance Requirement Missed Due to Deficient Administrative Guidance

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER(S)
1 1	2 3	8 9	8 9	— 0 1 4	— 0 0	1 2	2 1	8 9		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	1 0 0	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
		20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
C. A. Ross - Computer Science Superintendent	AREA CODE 6 1 6 — 4 6 5 - 5 9 0 1

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On November 27, 1989, with Unit One operating at 100 percent reactor thermal power, it was discovered that the P-250 computers rod sequence and deviation monitors had been inoperable since a computer bootstrap on November 23, 1989. The inoperability was unknown causing the required Technical Specification (T/S) increased surveillance to not be performed. T/S 4.1.3.1.1 and 4.1.3.2 both require a four hour surveillance of rod position determination if the rod deviation or sequence monitors are inoperable. The normal operating twelve hour T/S surveillances were completed with no out of specification rod positions during this event period. The P-250 Rod Monitor Program did not reactivate after the computer bootstrap because an operator failed to update one address point. The guideline to update the computer is not explicit and contradictory causing the operator to not perform the update task properly. To prevent this event from reoccurring, a detailed procedure to perform a post maintenance operability check of the P-250 computer will be written. The bootstrap guideline has been revised to include information necessary to bootstrap and update the computer correctly.

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TEXT (If more space is required, use additional NRC Form 366A's) (17)

CONDITIONS PRIOR TO OCCURRENCE:

Unit One in Mode One (Power Operation) at 100 percent power.

Unit Two in Mode One (Power Operation) at 100 percent power.

DESCRIPTION OF EVENT:

On November 27, 1989, it was discovered that the P-250 computer's (EIIS/ID) rod sequence and deviation monitor was inoperable following a computer bootstrap on November 23, 1989. The Control Room Operators were unaware that the rod deviation monitor was inoperable and an increased surveillance as required by Technical Specifications (T/S) was not performed. T/S 4.1.3.1.1 requires verifying the rod group position every four hours and T/S 4.1.3.2 requires comparing demand position indication system and the rod position indicator channels every four hours. The normal operating surveillances are performed every twelve hours. The normal surveillances were completed. No out of specification rods were detected during the event period.

After bootstrapping the P-250 computer, the analyst called the Control Room to have an operator update the computer. This updating includes entering the time, date, rod bank positions, and start up the Xenon Program. The operator performed the update but failed to update one computer address point. This address point (U0057) describes the bank position for the part length control rods. The plant no longer has part length rods but the computer program still requires an input. By not updating this one address point the rod deviation monitor program senses an unreliable input and does not perform its required function.

The operability check performed by the computer analyst did not detect this condition. The check proves the functionality of the alarm mechanics but not the program.

The condition remained until the morning of November 27, 1989. During a review of the P-250 alarm typewriter printout it was determined that the Rod Deviation Program was not operable. The Computer Section concurred and corrected the error.

CAUSE OF EVENT:

The cause of this event is that the information provided in the guideline to conduct the computer bootstrap and update is not explicit and contradictory in its requirements leaving the operator to relv on prior knowledge or skill of the trade.

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TEXT (If more space is required, use additional NRC Form 366A's) (17)

ANALYSIS OF EVENT:

This event is determined to be reportable per 10 CFR 50.73 (a)(2)(i)(B) as operation prohibited by the plant's Technical Specification. T/S 3/4.1.3 specifies that if the deviation monitor is inoperable then individual control rods must be verified to be within ± 12 steps of the group demand position every four hours. Since the reactor operator was under the impression that the deviation monitor was operable, he continued to verify rod position every eight hours (once per shift). This event did not cause violation of safety analysis assumptions for the following reasons:

1. Manual check of the rod position indication every eight hours did not indicate any misaligned control rods.

2. Continuous monitoring of Axial Flux Differential and Quadrant Power Tilt did not indicate any abnormal behavior of control rods.

3. Control rods were above the insertion limit at all times.

4. Review of the latest flux map (map number 111-12 dated December 8, 1989) indicated an allowable power level of 110 percent and $F_{\Delta H}$ margin of 7.4 percent. These peaking factor margins can accommodate some rod control misalignments in case they took place.

Although the four hour surveillance requirement of T/S 4.1.3.1.1 was missed, it can be concluded that the safety significance of this event was minimal.

CORRECTIVE ACTION:

The corrective action was taken on November 27, 1989. This consisted of updating the part length rod address. This caused the rod deviation/sequence monitor to begin functioning.

To prevent this event from recurring, a detailed procedure will be written to perform a post maintenance operability check of the P-250 computer. This procedure will be approved and in use by February 1, 1990. The bootstrap guideline has been revised to include information necessary to bootstrap and update the computer correctly. Also the P-250 computer program has been changed to allow the initialization of the deviation/sequence programs with only the shutdown and control rods since the plant does not have part length rods.

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TEXT *(If more space is required, use additional NRC Form 366A's)* (17)

FAILED COMPONENT IDENTIFICATION:

NONE

PREVIOUS SIMILAR EVENTS:

NONE