

PERRY NUCLEAR POWER PLANT

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Michael D. Lyster
VICE PRESIDENT - NUCLEAR

November 6, 1992
PY-CEI/NRR-1572 L

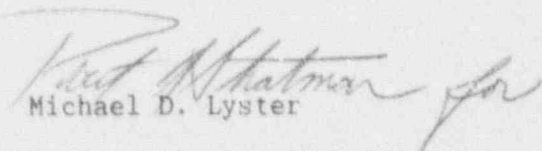
U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Perry Nuclear Power Plant
Docket No. 50-440
LER 92-019

Dear Sir:

Enclosed is Licensee Event Report 92-019 for the Perry Nuclear Power Plant.

Sincerely,


Michael D. Lyster

MDL:CRE:ss

Enclosure: LER 92-019

cc: NPC Project Manager
NRC Resident Inspector
NRC Region III

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NRC FORM 366 (5-92)		U.S. NUCLEAR REGULATORY COMMISSION		APPROVED BY OMB NO. 3150-0104 EXPIRES 5/31/95	
<h2 style="margin: 0;">LICENSEE EVENT REPORT (LER)</h2> <p style="margin: 5px 0 0 0;">(See reverse for required number of digits/characters for each block)</p>					
FACILITY NAME (1) Perry Nuclear Power Plant, Unit 1				DOCKET NUMBER (2) 05000 440	PAGE (3) 1 OF 4
TITLE (4) Valve Positioning Error During Surveillance Test Results in Loss of Both Standby Liquid Control System Trains					
EVENT DATE (5)			LER NUMBER (6)		REPORT NUMBER (7)
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER
10	09	92	92	019	00
					MONTH DAY YEAR
					11 06 92
					FACILITY NAME
					DOCKET NUMBER
					05000
					DOCKET NUMBER
					05000
OPERATING MODE (9) 1 POWER LEVEL (10) 100					
THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR (Check one or more) (11)					
20.402(b) 20.405(c) 50.73(a)(2)(iv) 73.71(b)					
20.405(a)(1)(i) 50.36(c)(1) X 50.73(a)(2)(v) 73.71(c)					
20.405(a)(1)(ii) 50.36(c)(2) X 50.73(a)(2)(vi) OTHER					
20.405(a)(1)(iii) 50.73(a)(2)(i) 50.73(a)(2)(vii)(A) (Specify in Abstract below and in Text, NRC Form 356A)					
20.405(a)(1)(iv) 50.73(a)(2)(ii) 50.73(a)(2)(vii)(B)					
20.405(a)(1)(v) 50.73(a)(2)(iii) 50.73(a)(2)(x)					
LICENSEE CONTACT FOR THIS LER (12)					
NAME Henry L. Heynat, Compliance Supervisor, Extension 5185				TELEPHONE NUMBER (Include Area Code) (216) 259-3737	
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)					
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	
SUPPLEMENTAL REPORT EXPECTED (14)					
YES (If yes, complete EXPECTED SUBMISSION DATE)				X NO	
				EXPECTED SUBMISSION DATE (15)	
				MONTH DAY YEAR	
ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)					
<p>On October 9, 1992, during the performance of Standby Liquid Control System (SLCS) surveillance testing, a valve positioning error resulted in the inoperability of both SLCS trains. The error was recognized when SLC Pump A was subsequently started with no discharge flow observed. The SLC system was in the abnormal configuration for approximately ten minutes prior to being corrected.</p> <p>The cause of this event was personnel error. The plant operator performing the valve manipulations inadvertently closed the SLC Pump A To Test Tank Isolation Valve instead of SLC Pump B To Test Tank Isolation Valve as required by the surveillance test instruction.</p> <p>The person responsible for the valve positioning error was counseled with regard to this event with emphasis placed on maintaining a focus on the larger scope of the task at hand as well as the verbatim procedural compliance aspects. Additionally, this event will be reviewed by both licensed and non-licensed operators as part of requalification training.</p>					

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (5)			PAGE (3)
Perry Nuclear Power Plant, Unit 1	05000 440	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 4
		92	019	00	

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

I. Introduction

A 1030 hours on October 9, 1992, both trains of the Standby Liquid Control (SLC) System [BR] were declared inoperable due to a valve positioning error. This event is being reported pursuant to the requirements of 10CFR50.73(a)(2)(v)(A) 10CFR50.73(a)(2)(vii)(A) as an event that alone could have prevented the fulfillment of the safety function of the SLC system to shutdown the reactor and maintain it in a safe condition, and additionally as an event where a single condition caused two independent trains to become inoperable in a single system designed to shutdown the reactor and maintain it in a safe condition. At the time of this event, the plant was operating at 100 percent power with reactor pressure at 1028 psig and saturated conditions.

II. Description of the Event

On October 9, 1992, Surveillance Instruction (SVI C41-T2001A), "Standby Liquid Control A Pump and Valve Operability Test" was being performed to satisfy Technical Specification surveillance requirements. After lining up and stroking the SLC Pump [P] suction valve and flushing the associated piping, the SVI directs the operator to establish a recirculation flowpath for the SLC A loop from the SLC Pump A suction to a test tank [TK] and back to the suction of the pump. This portion of the test demonstrates the operational readiness of SLC Pump A. The intended valve lineup sequence prior to starting the pump is as follows (see LER 92-019 Attachment 1):

Valves Opened*

- (3) 1C41-F017
- (4) 1C41-F016
- (7) 1C41-F031
- (8) 1C41-F039A (Verified Opened)

Valves Closed*

- (1) 1C41-F038A
- (2) 1C41-F040B**
- (5) 1C41-F037A
- (6) 1C41-F039B

* Number in parentheses indicates sequence in valve lineup

** 1C41-F040A was closed vice 1C41-F040B

The established valve lineup isolates the SLC Train A from the reactor by closing 1C41-F038A, thereby making it inoperable during the surveillance test. When the plant operator closed the SLC Pump A To Test Tank Isolation Valve (1C41-F040A) rather than the intended SLC Pump B To Test Tank Isolation Valve (1C41-F040B), two flowpaths were established from the SLC Train B. One flowpath being the normal flowpath from the SLC Storage Tank (1C41-A001) through the SLC B Pump (1C41-C001B) to the reactor and the other flow path which was established through 1C41-F040B from SLC Train B to the test tank (1C41-A002).

LICENSEE EVENT REPORT (LER)
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FACILITY NAME (1)		DOCKET NUMBER (2)		LER NUMBER (6)			PAGE (3)
Perry Nuclear Power Plant, Unit 1		05000440		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	3 OF 4
				92	019	00	

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

If the SLC system was required to be initiated while in this configuration, SLC Pump B would discharge to the test tank, which is vented to the containment atmosphere, rather than injecting to the reactor vessel as designed. Therefore, both SLC trains were incapable of performing their intended function to shutdown the reactor and maintain it in a safe condition.

The valve lineup error was discovered upon the operator starting SLC Pump A and observing no discharge flow. The operator responsible for the error immediately notified the Control Room upon discovery that a problem existed. The procedural steps were retraced and the valve positioning error was discovered and corrected. After reverifying the valve lineup for the surveillance test, the SVI was successfully completed.

III. Cause Analysis

The cause of this event was personnel error due to inattention to detail. The operator performing the valve manipulations was using the approved procedure, but failed to adequately verify the appropriate valve. This resulted in his inadvertently closing 1C41-F040A instead of 1C41-F040B as required by SVI-C41-T2001A. There were no external or environmental factors which were determined to have contributed to the error.

IV. Safety Analysis

The SLC system provides a backup method of shutting down the reactor, independent of the normal Control Rod Drive (CRD) system [AA] and the Alternate Rod Insertion (ARI) portion of the Redundant Reactivity Control System [JC] (RRCS). The SLC system is manually initiated from the main control room if the control room operator determines that the reactor cannot be shut down or kept shut down with the CRD system. Upon initiation, two full capacity positive displacement pumps inject a neutron absorbing boron solution into the reactor. The Perry Safety Analysis Report has classified the probability of a transient occurring with a failure of the normal scram function as extremely remote. Additionally, the Perry Technical Specifications allow both trains of SLC to be inoperable for up to 8 hours before taking actions to shutdown the reactor in the event that neither train can be restored within that time frame. The ARI portion of RRCS, as well as the Reactor Protection System [JC], was available to provide scram functions through the CRD system during the approximately 10 minute interval for which the abnormal SLC system configuration existed. Therefore, this event is considered not to be safety significant.

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Perry Nuclear Power Plant, Unit 1		05000 440		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	4 OF 4
				92	- 019 -	00	

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

V. Similar Events

Two previous similar events involving the inadvertent loss of both SLC trains during surveillance testing were reported in LERs 88-029 and 87-033. A thorough review of both the causes and corrective actions taken in response to the previous events determined that there were no similar causal factors and that the corrective actions from the two previous events could not reasonably have been expected to prevent the one which occurred on October 9, 1992.

VI. Corrective Actions

The operator responsible for the valve positioning error was counseled with regard to this event with emphasis placed on maintaining a focus on the larger scope of the task at hand as well as verbatim procedural compliance aspects. Although the existing procedure has been determined to be adequate as written, several human factors related recommendations will be evaluated as enhancements. Additionally, this event will be reviewed by both licensed and non-licensed operators as part of requalification training.

Energy Industry Identification System Codes are identified in the text as [XX].

