



PERRY NUCLEAR POWER PLANT
10 CENTER ROAD
PERRY, OHIO 44081
(216) 259-3737

Mail Address:
P.O. BOX 97
PERRY, OHIO 44081

Michael D. Lyster
Vice President - Nuclear

December 19, 1990
PY-CEI/NRR-1283 L

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

Perry Nuclear Power Plant
Docket No. 50-440
LER 90-034

Dear Sir:

Enclosed is Licensee Event Report 90-034 for the Perry Nuclear Power Plant.

Sincerely,

A handwritten signature in cursive script, appearing to read 'M. D. Lyster'.

Michael D. Lyster

MDL:NJL:njc

Enclosure: LER 90-034

cc: NRR Project Manager
Sr. Resident Inspector

U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

9012260189 901219
PDR ADOCK 05000440
S PDR

Operating Units:
Cleveland Electric Illuminating
Toledo Edison

240033

Handwritten notes:
V. Lyster
IE22 11

LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (F-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555 AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503

FACILITY NAME (1) Perry Nuclear Power Plant, Unit 1 DOCKET NUMBER (2) 0500044101 PAGE (3) 1 OF 03

TITLE (4) Reactor Pressure Vessel Water Level Instrumentation Equalizing Valve Misposition Results in a Technical Specification Violation.

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	5	9	0	9	0	0	0	3	4	0	0	1	2	1	9	9	0	0	5	0	0	0

OPERATING MODE (9) 4 THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)

20.402(b)	20.406(c)	50.73(a)(2)(iv)	73.71(b)
20.406(a)(1)(i)	50.36(a)(1)	50.72(a)(2)(iv)	73.71(c)
20.406(a)(1)(ii)	50.36(a)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
20.406(a)(1)(iii)	X 50.73(a)(2)(ii)	50.73(a)(2)(viii)(A)	
20.406(a)(1)(iv)	50.73(a)(2)(iii)	50.73(a)(2)(viii)(B)	
20.406(a)(1)(v)	50.73(a)(2)(iv)	50.73(a)(2)(ix)	

LICENSEE CON. FACT FOR THIS LER (12)

NAME Henry L. Hezrat, Compliance Engineer, Extension 6855 TELEPHONE NUMBER 2116 215191-13171317

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS

SUPPLEMENTAL REPORT EXPECTED (14) YES (if yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15) MONTH DAY YEAR

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

On November 25, 1990, I&C technicians discovered an open instrument equalizing valve to a reactor level transmitter. The normally closed valve affected the operability of seven reactor vessel level and pressure transmitters including one level transmitter required to be operable by Technical Specifications. Sometime following a September 30 calibration and prior to the date of discovery, the level transmitters were rendered inoperable when the equalizing valve was opened. During the time of potential inoperability, the Plant was in Operational Conditions 5 (Refuel with core alterations in progress) and 4 (Cold Shutdown).

The root cause for this event could not be determined. The equalizing valve appears to have been repositioned between September 30 and November 25, 1990, and therefore, because repositioning was not authorized, this event is attributed to personnel error. A refueling outage was in progress during this entire period. The equalizing valve was immediately closed and a verification of all other reactor water level transmitter equalizing valve positions was conducted with no discrepancies noted. As part of the I&C continuing training program, all I&C technicians will review the circumstances of this event. Additionally, as part of the operator requalification program, this event will be reviewed with all licensed and non-licensed operators.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 600 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-630), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) Perry Nuclear Power Plant, Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 4 4 0 9 0	LER NUMBER (6)			PAGE (3) 0 2 OF 0 3
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
		0	3	4	

TEXT (if more space is required, use additional NRC Form 306A's) (7)

On November 25, 1990 at 0300 hours during performance of a Reactor Recirculation system valve lineup, Instrumentation and Controls (I&C) technicians discovered an instrument equalizing valve open, which rendered several reactor vessel [RPV] level and pressure transmitters [LT] [PT] inoperable. One of the level transmitters was required to be operable by Technical Specification 3.3.2 in Mode 5 (Refuel) during core alterations. At the time of discovery, the Plant was in Operational Condition 4 (Cold Shutdown). Reactor Pressure Vessel (RPV) temperature was 140 degrees Fahrenheit and reactor pressure was atmospheric.

On September 30, 1990, I&C technicians completed surveillance instruction (SVI-B21-T0035D), "RPV Low Level 3 and High Level 8 RPS and RHR Shutdown Isolation Channel D Calibration for 1B21-N080D" while the Plant was in Operational Condition 5. During the performance of this instruction, the equalizing valve was independently verified to be closed. The instrument equalizing valve was found open on November 25, 1990 at 0300 with the Plant in Operational Condition 4. No authorized manipulation of this valve had been scheduled or recorded during the interim. Conservatively, it was assumed that the valve had been open since September 30, 1990.

An open equalizing valve renders the transmitter inoperable by allowing both the high and low pressure sides of the transmitter to sense the same pressure. Any readings provided by a transmitter in this condition would not be properly referenced and therefore, would not be accurate. A condensing chamber from the top of the reactor vessel maintains the reference leg to the transmitter full. In this situation, there is one condensing chamber for seven transmitters and opening any one of the equalizing valves affects the reference of all the associated transmitters. Of these seven, only one of the transmitters was required to be operable by Technical Specifications during the Operational Conditions encountered.

Technical Specification 3.3.2 requires two channels per trip system to be operable for Reactor Vessel Water Level Low, Level 2 during core alterations and operations with the potential for draining the reactor vessel. Otherwise, the associated trip system should be placed in the tripped condition within one hour. With the equalizing valve open, only one channel was operable in one trip system and the associated action statements were not performed. During this period of instrument inoperability, core alterations were being performed in support of a refueling outage. This is a violation of Technical Specification 3.3.2 Action b.

The root cause for this event could not be determined. The equalizing valve appears to have been repositioned between September 30 and November 25, 1990, and therefore, because repositioning was not authorized, this event is attributed to personnel error. A refueling outage was in progress during this entire period.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (F-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) Perry Nuclear Power Plant, Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 4 4 0 9 0	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		0	3	4	0	0	3 OF 0 3

TEXT (if more space is required, use additional NRC Form 366A (1) (17))

Four wide range reactor level transmitters, provide input signals to level switches [LS] which signal the Nuclear Steam Supply Shutoff (NSSS) System [JM] to close the Containment Isolation Valves [ISV]. The level switches have their trip setpoint at 129.8 inches (Level 2) above the top of active fuel. When reactor level decreases to this level, certain primary and secondary containment isolation valves are automatically closed. The reactor vessel cavity was flooded from September 15 through November 17, 1990, and the indications and alarms associated with this evolution would have provided warning of a decrease in water level well before the reactor vessel water level isolation would have become necessary.

Additionally, three other wide range transmitters sensing RPV water level from the same elevation but from separate vessel taps remained operable during the entire period. If reactor water level had begun to drop through the relevant operating range, the three operable level transmitters would have provided a containment isolation. Therefore, this event is not considered to be safety significant.

Investigation revealed one event, (LER 89-024) during the 1989 refueling outage in which an instrument vent line was left open and uncapped. This event was caused by a distinct personnel error in that I&C technicians failed to follow procedures properly. Because the November 25, 1990 discovery could not be attributed to any distinct personnel error, it is not clear that previous corrective actions could have prevented this event.

Corrective actions include the immediate closure of the equalizing valve and a walkdown of all similar level transmitter equalizing valves to verify correct position. No further anomalies were discovered. As part of the I&C continuing training program, all I&C technicians will review the circumstances of this event. Additionally, as part of the operator requalification program this event will be reviewed with all licensed and non-licensed operators.

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