

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 (P 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) 050004401 OF 03 PAGE (3)

TITLE (4) Open Gas Purge Valve on Control Room Radiation Monitor 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	2	1	1	9	0	9	0	0	3	8	0	5	0	0	0		
												0	5	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)	50.73(a)(2)(v)	73.71(a)
20.406(a)(1)(ii)	50.36(a)(2)	50.73(a)(2)(vi)	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)(vii)(A)	
20.406(a)(1)(iv)	50.73(a)(2)(iii)	50.73(a)(2)(vii)(B)	
20.406(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(vii)(C)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
<u>Henry L. Hegrat, Compliance Engineer, Extension 6855</u>	<u>2116 2159-1317</u>
	AREA CODE

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC

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 December 11, 1990 at 1500, the Control Room Noble Gas Radiation Monitor was found to be inoperable due to a nonrepresentative sample being drawn through an open gas purge valve. This monitor had been inoperable for greater than seven days without compensatory actions taken in accordance with Technical Specification 3.3.7.1.

The root cause of this event is personnel error of an indeterminate nature. The last documentation of the valve being in the proper position was an independent verification of valve position on February 1, 1990. However there is no documentation of any other valve manipulations since that time. Therefore, it can not be determined when or how the valve was mispositioned.

In order to prevent recurrence, VLI-D17 was changed to require the gas purge valves of all of the D17 airborne radiation monitors to be locked closed. SOI-D17 will be revised to include additional guidance if proper flow on the radiation monitor is not met. Also the operation of the radiation monitors will be discussed during the Health Physics continuous training. In addition, this event will be discussed with all licensed and nonlicensed operators during their requalification training.

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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 RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20545, 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	POCKET NUMBER (2)  0   5   0   0   0   4   4   0	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		9   0	—   0   3   8	—   0   0	0   2	OF	0   3

TEXT (If more space is required, use additional NRC Form 388A's) (17)

On December 11, 1990 at 1500, the Control Room Noble Gas Radiation Monitor was found to be inoperable due to a nonrepresentative sample being drawn through an open gas purge valve. This monitor had been inoperable for greater than seven days without compensatory actions taken in accordance with Technical Specification 3.3.7.1. At the time of the event the plant was in Operational Condition 4 (Cold Shutdown). The Reactor Pressure Vessel [RPV] was at atmospheric pressure with the reactor water temperature at 130 degrees.

On December 11, 1990 during a review of the Valve Line-up Instruction (VLI-D17) "Airborne Radiation Monitoring (ABRM) System" performed that day, the Unit Supervisor discovered that the gas purge valve of the Control Room Noble Gas Radiation Monitor was throttled while the VLI required it to be closed. Further investigation found that a nonrepresentative sample would be taken with the monitor aligned in this condition. All other D17 Radiation Monitors required by the Technical Specification were verified to be operable. A review of a previously performed VLI-D17 showed that the gas purge valve had been throttled open since at least December 4, 1990 and therefore the time requirement of Action 72 of Technical Specification 3.3.7.1. had expired without the proper actions being taken. At 1500 the Control Room Noble Gas Radiation Monitor was declared inoperable. The Control Room Area Radiation Monitor was verified to be operable and the emergency recirculation mode of the Control Room Heating, Ventilation, and Air Conditioning system was initiated in accordance with Action 72 of Technical Specification 3.3.7.1. VLI-D17 was again performed and the Control Room Noble Gas Room Radiation Monitor was declared operable at 0950 on December 12, 1990.

The root cause of this event is personnel error of an indeterminate nature. The last documentation of the valve being in the proper position was an independent verification of valve position, following the performance of Periodic Instruction (PTI-D17-P0770) "Control Room Airborne Radiation Monitor OD17K770 Calibration" on February 1, 1990. However, there is no documentation of any valve manipulations since that time. Therefore, it can not be determined exactly when or how the valve was mispositioned. Further, during a review of VLI-D17 previously performed on December 4, 1990, a Supervising Operator noted the gas purge valve to be throttled open, which was in conflict with the required closed position. However, when the Supervising Operator contacted Health Physics personnel he was erroneously told that the valve was open to obtain a proper sample flow rate for this monitor. VLI-D17 was again performed on December 11 to meet an independent verification requirement. When the Unit Supervisor reviewed this VLI, he obtained the correct information regarding the effect of the open gas purge valve.

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ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P.53) U.S. NUCLEAR REGULATORY COMMISSION WASHINGTON, DC 20555 AND TO THE PAPERWORK REDUCTION PROJECT (3 50-0104) OFFICE OF MANAGEMENT AND BUDGET WASHINGTON, DC 20503.

FACILITY NAME (1)

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YEAR	SEQUENTIAL NUMBER	REVISION NUMBER
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Perry Nuclear Power Plant, Unit 1

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TEXT (If more space is required, use additional NRC Form 386A's) (17)

The operability of this radiation monitoring instrumentation ensures that the radiation levels are continually measured in the Control Room Ventilation System and the alarm or automatic action is initiated when the radiation level trip setpoint is exceeded. The setpoints for the Control Room Noble Gas Radiation Monitor have a 20% conservative factor so a small amount of air in-leakage would not prohibit the monitor from performing its design function. A review of plant radiological releases was conducted. During the plant shutdown in September 1990 there was one period with an elevated release. The magnitude of this release was consistent with those encountered during previous plant operations when the Control Room Noble Gas Radiation Monitor was operable. During these previous radiological releases, the design of the Control Room ventilation system prevented an intake as noted by the stable, background reading on the Control Room Noble Gas Radiation Monitor. Although the Control Room Noble Gas Radiation Monitor may not have been analyzing a representative sample from February 1, 1990 through December 12, 1990, the Control Room Area Radiation Monitor was operable during this entire time, providing an alarm function for abnormal radiation levels to Control Room personnel. Therefore this event is not considered to be safety significant. A review of previous events involving radiation monitors did not find any previous events involving valve line-up problems.

In order to prevent recurrence, VLI-D17 was changed to require the gas purge valves of all of the D17 airborne radiation monitors to be locked closed. Also the operation of the radiation monitors will be discussed during the Health Physics continuous training. In addition, this event will be discussed with all licensed and nonlicensed operators during their requalification training.

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