

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Clinton Power Station	DOCKET NUMBER (2) 0 5 0 0 0 4 6 1	PAGE (3) 1 OF 0 5
---------------------------------------------------	---------------------------------------------	-----------------------------

TITLE (4) **Flush Valve Mispositioned by an Indeterminable Person Results in Inoperable Accident Range Gaseous Effluent Monitor**

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)
									NONE		0 5 0 0 0
0 9	0 1	8 8	8 8	0 2 3	0 0	0 9	3 0	8 8			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)						73.71(b)
POWER LEVEL (10) 1 0 0	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.408(e)	<input type="checkbox"/> 60.73(a)(2)(iv)				<input type="checkbox"/> 73.71(a)
	<input type="checkbox"/> 20.408(a)(1)(ii)	<input type="checkbox"/> 60.36(e)(1)	<input type="checkbox"/> 60.73(a)(2)(v)				<input checked="" type="checkbox"/> OTHER (Specify in Abstract below and in Text, NRC Form 366A)
	<input type="checkbox"/> 20.408(a)(1)(iii)	<input type="checkbox"/> 60.36(e)(2)	<input type="checkbox"/> 60.73(a)(2)(vi)				Voluntary Report
	<input type="checkbox"/> 20.606(a)(1)(iii)	<input type="checkbox"/> 60.73(a)(2)(ii)	<input type="checkbox"/> 60.73(a)(2)(viii)(A)				
	<input type="checkbox"/> 20.408(a)(1)(iv)	<input type="checkbox"/> 60.73(a)(2)(iii)	<input type="checkbox"/> 60.73(a)(2)(vii)(B)				
<input type="checkbox"/> 20.408(a)(1)(v)	<input type="checkbox"/> 60.73(a)(2)(iv)	<input type="checkbox"/> 60.73(a)(2)(ix)					

LICENSEE CONTACT FOR THIS LER (12)						TELEPHONE NUMBER					
NAME T. J. Camilleri, Assistant Manager - Plant Maintenance X-3204						AREA CODE					
						2 1 7 9 3 5 - 8 8 8 1					

COMPLETE 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
A	P	R	M	O	N				
			E	0	7				

SUPPLEMENTAL REPORT EXPECTED (14)				EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)				<input checked="" type="checkbox"/> NO				

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

ABSTRACT

On September 1, 1988, with the plant in Mode 1 (Power Operation), Radiation Protection (RP) personnel discovered that the flush valve for the Heating, Ventilating, and Air Conditioning (HVAC) high range radioactivity monitor grab sample pallet was open. The open flush valve would have caused the monitor to sample effluent diluted by instrument air in the event of an effluent release from the HVAC stack under accident conditions. The dilution would have caused a lower than actual measurement of the amount of radioactivity released. The cause of the event is attributed to personnel error; however, the responsible organization or individual and the date when the event occurred could not be determined. The last documented verification of the flush valve position was August 1, 1988. Corrective actions include tagging the flush supply valves for the process radiation monitors closed and upgrading procedures to require the performance of a complete valve lineup prior to returning a monitor to service. This event is not reportable under 10CFR50.73. This LER is being submitted due to the similarity of this event to previous reportable events experienced at Clinton Power Station.

*JEZZ
11.*

8810040388 880930
PDR ADOCK 05000461
S PNU

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Clinton Power Station	DOCKET NUMBER (2) 0 5 0 0 0 4 6 1 8 8	LER NUMBER (8)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 8	0 2 3	0 0	0 2	OF	0 5

TEXT (if more space is required, use additional NRC Form 2664's) (17)

DESCRIPTION OF EVENT

On September 1, 1988, at approximately 2010 hours, with the plant in Mode 1 (POWER OPERATION), at approximately 100% reactor [RCT] power, during performance of Procedure 9911.17, "Accident Range Monitor (AXM) Surveillance - Monthly Channel Check", Radiation Protection (RP) personnel noted that no flow was indicated on the grab sample pallet for the Heating, Ventilating and Air Conditioning (HVAC) Common Stack [VL] high range radioactivity monitor [MON], ORIX-PRO12. During investigation into the lack of flow indication, the flush valve [VLV] on the monitor's grab sample pallet was found partially open.

The flush valve is a small motor operated valve, normally closed, that supplies air from the instrument air system [LD] to the grab sample pallet to flush the system prior to removing the filter media for sampling. The open flush valve would have caused ORIX-PRO12 to monitor stack effluent diluted with instrument air instead of pure HVAC stack effluent gas in the event of an effluent release under accident conditions. As a result, ORIX-PRO12 was unable to meet its Technical Specification operability requirements. The purpose of ORIX-PRO12 is to continuously monitor and sample the HVAC stack effluent for postaccident releases of iodine, particulates and noble gases.

Subsequently, on September 13, 1988, a crack was found on the flow indicator on the grab sample pallet for ORIX-PRO12. The crack caused the indicator to incorrectly measure flow. The date the crack occurred could not be determined, therefore, the crack may have caused the flow indication problem on September 1, 1988, which led to finding the flush valve mispositioned.

Investigation of this event identified that between August 1, 1988, the last performance of the monthly channel check, and September 1, 1988, the date the condition was discovered, maintenance was performed on the monitor.

On August 6, 1988, during the performance of Procedure 9437.64, "Battery Backup Check", it was identified that the battery charging module for monitor ORIX-PRO12 would not perform its intended function. The function of the battery [BTRY] charging module is to energize the monitor's battery when the normal power supply to the monitor is lost. The battery ensures that the data stored in the monitor's circuit cards is retained. The battery charging module is not required to function to maintain monitor ORIX-PRO12 operability. Maintenance Work Request (MWR) C53358 was initiated to repair the battery charging module.

On August 11, 1988, at approximately 1115 hours, a Limiting Condition for Operation (LCO) ACTION was entered to replace the battery charging module for ORIX-PRO12. Replacing the battery charging module should not have repositioned the flush valve. The replacement battery charging module did not correct the problem documented in MWR C53358. The LCO ACTION was exited at approximately 1050 hours on August 12, 1988, since Maintenance was no longer involved in repairs.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Clinton Power Station	DOCKET NUMBER (2) 0500046188	LER NUMBER (3)			PAGE (3) 3 OF 5
		YEAR 88	SEQUENTIAL NUMBER 023	REVISION NUMBER 00	

TEXT (if more space is required, use additional NRC Form 365A's (17))

On August 19, 1988, at approximately 1800 hours, an LCO ACTION was entered to allow Maintenance to continue work under MWR C53358. The battery charging module was again replaced. Replacing the battery charging module should not have repositioned the flush valve. Following the completion of maintenance activities, the Control and Instrumentation (C&I) technician who performed the work checked the valve position indication for the flush valve, because he was aware of a prior event involving a mispositioned flush valve. The flush valve indicator was lit, indicating the valve was closed as required. At approximately 0055 hours, August 20, 1988, the LCO ACTION was exited.

On August 20, 1988, at approximately 0247 hours, an RP technician took "local" control of ORIX-PRO12. The monitor was not providing data to the central control consoles in the RP office and the Main Control Room. "Local" control was taken to determine the cause of the problem. Taking "local" control of the monitor does not render the monitor inoperable and does not require entering an LCO ACTION statement. The RP technician determined that the monitor was recording data and was functioning properly. The cause of the problem could not be determined, and when the monitor was taken out of "local" control, at approximately 0325 hours, the monitor was providing data to the RP Office and Main Control Room, as required. The actions taken by the RP technician should not have repositioned the flush valve.

On September, 1, 1988, the flush valve was found partially open during the performance of the monthly channel check of ORIX-PRO12. Upon discovery that the flush valve was open, it was shut, the Operations Shift Supervisor (SS) was notified, and the flush valve positions of similar radiation monitors were verified. All other flush valves were verified shut, as required. The channel check of ORIX-PRO12 was subsequently completed with satisfactory results.

No automatic or manually initiated safety system responses were necessary to place the plant in a safe and stable condition. No other equipment or components were inoperable at the start of this event such that their inoperable condition contributed to this event.

CAUSE OF EVENT

The cause of this event is attributed to personnel error by an unknown person. The flush valve was last verified and documented to be in its proper position on August 1, 1988. No firm evidence exists of when the flush valve was repositioned. Between August 1, 1988, and September 1, 1988, maintenance was performed on monitor ORIX-PRO12 which rendered the monitor inoperable. The maintenance should not have affected the flush valve position. The maintenance technician who completed the maintenance, because he was aware of a prior event involving a mispositioned flush valve, checked the valve position indication for the flush valve. The flush valve indicator was lit, indicating the valve was closed, as required. Additionally, on August 20,

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Clinton Power Station	DOCKET NUMBER (2) 0 5 0 0 0 4 6 1 8 8	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		8 8	0 2 3	0 0	0 4	OF 0 5

TEXT IF more space is required, use additional NRC Form 306A (9/11)

1988, the monitor was placed in "local" control to investigate a data transmission problem. The actions taken while investigating the data transmission problem should not have affected the flush valve position.

A similar event is documented in LER 88-015-00, "Incorrect Command During Channel Functional Test Leaves Flush Valve Partially Open and Results in Inoperable Offgas Pretreatment Radioactivity Monitor and Invalid Hydrogen Samples". One of the corrective actions for that event included the performance of a review of the area and process radiation monitor systems design for possible enhancements. The review determined that although system enhancements could be made, the most significant action which could be taken to improve performance would be to require that a valve lineup be performed prior to returning any monitor to service. The valve lineup recommendation had not been implemented at the time of this event, but was scheduled to be incorporated into appropriate procedures by February 28, 1989. Had this corrective action been completed prior to this event, operability of the monitor would have been confirmed after completion of maintenance activities.

CORRECTIVE ACTION

As an interim corrective action, in order to prevent the inadvertent dilution of effluent due to mispositioned flush valves, Operations has tagged shut the flush supply valves in all Technical Specification required process radiation monitors, including those for accident range monitors. Following the revision of all applicable process radiation monitor procedures, the necessity of tagging the flush supply valves closed will be evaluated.

Clarification of the responsibilities for operating and maintaining operability of the area and process radiation monitor systems has been provided to the Operations and Radiation Protection Shift Supervisors.

Direction on those actions required to be completed prior to declaring area and process radiation monitors operable has been provided to Radiation Protection personnel and the Operations Shift Supervisors. These actions are: perform a valve lineup, verify the correct channel parameters for all channels are in place, verify all required surveillances are complete, verify the monitor is in the correct mode, and verify the maintenance activity is complete.

Radiation Protection procedures will be revised to clarify the necessity of performing a valve lineup on process radiation monitors prior to returning them to service following maintenance or abnormal system operation. This action will be complete by November 30, 1988.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Clinton Power Station	DOCKET NUMBER (2) 0 5 0 0 0 4 6 1	LER NUMBER (6)			PAGE (3)		
		YEAR 8 8	SEQUENTIAL NUMBER 0 2 3	REVISION NUMBER 0 0			

TEXT (if more space is required, use additional NRC Form 266A's) (17)

ANALYSIS OF EVENT

This event is not reportable under 10CFR50.73. This LER is being submitted due to the similarity of this event to previous reportable events experienced at the Clinton Power Station. Technical Specification 3.3.7.5 requirements were met since monitor ORIX-PR012 was returned to service immediately when found inoperable.

Assessment of the safety consequences and implications of this event indicates that the event was not safety significant for existing plant conditions. At no time was the plant in a condition which would have required ORIX-PR012 to perform its function.

Monitor ORIX-PR012 is not designed to mitigate the consequences of an accident. The purpose of ORIX-PR012 is to provide continuous accident range noble gas monitoring and sampling of the HVAC stack effluent for postaccident releases of radioactive iodines, particulates, and noble gases. However, in the event an accident had occurred during the time the flush valve was open and effluent was released from the HVAC stack, the measured amount of radioactivity and particulates released would be less than the actual release due to the dilution of the effluent by instrument air.

ADDITIONAL INFORMATION

LER 87-040-00 discussed a violation of Technical Specifications due to personnel error. Monitor ORIX-PR012 was inoperable due to failure to reinstall the filter media following monitor calibration.

LER 87-068-00 discussed a violation of Technical Specifications due to personnel error by an unknown person. The particulate filter paper was missing from the Standby Gas Treatment System high range radioactivity monitor, rendering the monitor inoperable.

LER 88-015-00 discussed a violation of Technical Specifications due to personnel error. The flush valve on the offgas pretreatment process radiation monitor was found open, rendering the monitor inoperable.

LER 88-020-00 discussed a violation of Technical Specifications due to personnel error. The Shutdown Service Water radioactive liquid effluent monitor was left in standby after maintenance was completed.

For further information regarding this event, contact T. J. Camilleri, Assistant Manager - Plant Maintenance at (217) 935-8881, extension 3204.

U-601285
L45-88(09-30)-LP
2C,220

ILLINOIS POWER COMPANY



CLINTON POWER STATION, P.O. BOX 678, CLINTON, ILLINOIS 61727

September 30, 1988

10CFR50.73

Docket No. 50-461

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

Subject: Clinton Power Station - Unit 1
Licensee Event Report No. 88-023-00

Dear Sir:

Please find enclosed Licensee Event Report No. 88-023-00;
Flush Valve Mispositioned by an Indeterminable Person Results in
Inoperable Accident Range Gaseous Effluent Monitor. This report is
being submitted due to the similarity of this event to previous events
experienced at Clinton Power Station.

Sincerely yours,

A handwritten signature in cursive script that reads 'D. L. Holtzsch'.

D. L. Holtzsch
Acting Manager - Licensing and
Safety

RSF/pgc

Enclosure

cc: NRC Resident Office
NRC Region III, Regional Administrator
INPO Records Center
Illinois Department of Nuclear Safety
NRC Clinton Licensing Project Manager

JE22
/1