

LICENSEE EVENT REPORT (LER)

Facility Name (1) Byron, Unit 1 Docket Number (2) 0 | 5 | 0 | 0 | 0 | 4 | 5 | 4 Page (3) 1 | of | 0 | 2

Title (4) AUTOMATIC ACTUATION OF VC MAKEUP FAN DUE TO IODINE DETECTOR FAILURE ON RADIATION MONITOR OPR31J

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 0	2 8	8 5	8 5	0 9 4	0 0	1 1	2 7	8 5	NONE	0 5 0 0 0

OPERATING MODE (9) 5 THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR (Check one or more of the following) (11)

POWER LEVEL (10) <u>0 0 0</u>	<u>20.402(b)</u>	<u>20.405(c)</u>	<u>X</u>	<u>50.73(a)(2)(iv)</u>	<u>73.71(b)</u>
	<u>20.405(a)(1)(i)</u>	<u>50.36(c)(1)</u>		<u>50.73(a)(2)(v)</u>	<u>73.71(c)</u>
	<u>20.405(a)(1)(ii)</u>	<u>50.36(c)(2)</u>		<u>50.73(a)(2)(vii)</u>	<u>Other (Specify in Abstract below and in Text)</u>
	<u>20.405(a)(1)(iii)</u>	<u>50.73(a)(2)(i)</u>		<u>50.73(a)(2)(viii)(A)</u>	
	<u>20.405(a)(1)(iv)</u>	<u>50.73(a)(2)(ii)</u>		<u>50.73(a)(2)(viii)(B)</u>	
	<u>20.405(a)(1)(v)</u>	<u>50.73(a)(2)(iii)</u>		<u>50.73(a)(2)(x)</u>	

LICENSEE CONTACT FOR THIS LER (12)

Name Rich Hildebrand, System Test Engineer Ext. 2415 TELEPHONE NUMBER 8 | 1 | 5 | 2 | 3 | 4 | - | 5 | 4 | 4 | 1

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

CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS
<u>X</u>	<u>I L</u>	<u>I D E T</u>	<u>G 0 6 3</u>	<u>N</u>					

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 fifteen single-space typewritten lines) (16)

On 10/28/85 at 0951 while in cold shutdown (mode 5) at 110 degrees F, 0 psig; process radiation monitor OPR31J (Main Control Room Outside Air Intake 'A') went into interlock mode due to a check source test failure. This caused the Train 'A' Main Control Room Ventilation system to transfer to its Engineered Safety Feature (ESF) configuration. Troubleshooting revealed that the radiation monitor's iodine detector was malfunctioning. The iodine detector was replaced, the monitor recalibrated, tested and returned to service on November 4, 1985.

Plant and public safety were not affected as this failure resulted in the implementation of the ESF configuration at levels more conservative than design.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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		Year	///	Sequential Number	///	Revision Number			
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TEXT

On October 28, 1985, at 0951, with the plant in Cold Shutdown (Mode 5), at 110 degrees F, 0 psig, radiation monitor OPR31J (Main Control Room Outside Air Intake 'A') (IL) went into the interlock mode due to a check source test failure. This caused the Train 'A' Main Control Room Ventilation System (VI) to transfer to its Engineered Safety Feature (ESF) configuration. A check source test was performed and the results showed that only 25% of expected counts were realized. The troubleshooting guide in the vendor's manual directed to check cable connections and high voltage power supplies. This was done but did not identify the problem. Subsequently, analysis with a multi-channel spectrum analyzer demonstrated that the iodine detector in the monitor was malfunctioning. To correct the problem, the iodine detector was replaced. The monitor was recalibrated and a check source test performed to verify proper operation. The monitor was then returned to normal operating condition on November 4, 1985.

Plant and public safety were not affected. This failure of the iodine detector results in the radiation monitor initiating its safeguards action at levels more conservative than design. Transfer of the Main Control Room Ventilation System to its ESF configuration establishes a safer plant condition.

There have been no previous iodine detector failures of this nature, however, check source failures caused by insufficient tolerance in the checksource setpoints and a mechanical linkage failure have caused Main Control Room ESF actuations in the past (LER 84-021-00, 85-076-00).

The exact cause of the iodine detector failure is unknown. The detector was purchased from G.A. Technologies and is their part #03602087-001 (SCD-GAMMA DET). This is considered an isolated occurrence and no further action is planned at this time.



Commonwealth Edison
Byron Nuclear Station
4450 North German Church Road
Byron, Illinois 61010

November 27, 1985

LTR: BYRON 85-1511

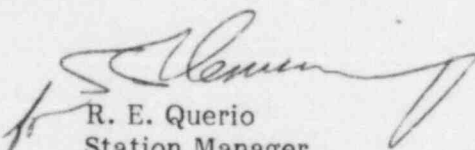
U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, D. C. 20555

Dear Sir:

The enclosed Licensee Event Report from Byron Generating Station is being transmitted to you in accordance with the requirements of 10CFR50.73(a)(2)(iv) which requires a 30 day written report.

This report is number 85-094-00; Docket No. 50-454.

Very truly yours,


R. E. Querio
Station Manager
Byron Nuclear Power Station

REQ/bf

Enclosure: Licensee Event Report No. 85-094-00

cc: J. G. Keppler, NRC Region III Administrator
J. Hinds, NRC Resident Inspector
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