

LICENSEE EVENT REPORT (LER)

Facility Name (1) Byron, Unit 1 Docket Number (2) 015000454 Page (3) 1 of 03

Title (4) AUTO START OF DB VC M/U FAN

Event Date (5)			LER Number (6)			Report Date (7)			Other Facilities Involved (8)	
Month	Day	Year	Year	Sequence Number	Revision Number	Month	Day	Year	Facility Names	Docket Number(s)
01	08	85	85	01818	011	11	12	85	None	015000454

OPERATING MODE (9) 1

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

20.402(b)	<input type="checkbox"/>	20.405(c)	<input checked="" type="checkbox"/>	50.73(a)(2)(iv)	<input type="checkbox"/>	73.71(b)	<input type="checkbox"/>
20.405(a)(1)(i)	<input type="checkbox"/>	50.36(c)(1)	<input type="checkbox"/>	50.73(a)(2)(v)	<input type="checkbox"/>	73.71(c)	<input type="checkbox"/>
20.405(a)(1)(ii)	<input type="checkbox"/>	50.36(c)(2)	<input type="checkbox"/>	50.73(a)(2)(vii)	<input type="checkbox"/>	Other (Specify	<input type="checkbox"/>
20.405(a)(1)(iii)	<input type="checkbox"/>	50.73(a)(2)(i)	<input type="checkbox"/>	50.73(a)(2)(viii)(A)	<input type="checkbox"/>	in Abstract	<input type="checkbox"/>
20.405(a)(1)(iv)	<input type="checkbox"/>	50.73(a)(2)(ii)	<input type="checkbox"/>	50.73(a)(2)(viii)(B)	<input type="checkbox"/>	below and in	<input type="checkbox"/>
20.405(a)(1)(v)	<input type="checkbox"/>	50.73(a)(2)(iii)	<input type="checkbox"/>	50.73(a)(2)(x)	<input type="checkbox"/>	Text)	<input type="checkbox"/>

LICENSEE CONTACT FOR THIS LER (12)

Name Mike Ryterski Ext. 2415

TELEPHONE NUMBER

AREA CODE 8115 234 - 544

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPD	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPD
C	I L	/ / / /	G 0163	N					

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)

Process Radiation Monitor OPR34J (Main Control Room Outside Air Intake 'B') went into the interlock mode as a result of a noise spike on the monitor's gas channel. Process Radiation Monitor OPR33J (Main Control Room Outside Air Intake 'B') also went into the interlock mode as a result of a noise spike on the monitor's gas channel at a later date. This caused the Train B Main Control Room Ventilation System to transfer to its ESF configuration on both occasions.

It is believed that the source of the noise was external to the monitor. A powerline analyzer was connected to monitor OPR34J from Sept. 17 through Oct. 18, 1985 to obtain data on input voltage and area RF levels should a noise spike recur. No noise spikes occurred while the analyzer was connected. The spikes are now believed to have been isolated occurrences, and no further corrective action will be taken unless the problem recurs.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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TEXT

On September 8, 1985, at 0143, with the plant operating in Mode 1 at 92% power, Process Radiation Monitor OPR34J (Main Control Room Outside Air Intake 'B') went into the interlock mode as a result of a noise spike on the monitor's gas channel. On September 11, 1985, at 1509, with the plant operating in Mode 1 at 47% power, Process Radiation Monitor OPR33J (Main Control Room Outside Air Intake 'B') also went into the interlock mode as a result of a noise spike on the monitor's gas channel. On both occasions the Train B Main Control Room Ventilation System transferred to its ESF configuration. The source of these noise spikes is unknown at this time. The noise spikes were of short duration, therefore, each monitor automatically returned to normal operating status shortly after each event.

There was no effect on plant or public safety. The transfer of the Main Control Room Ventilation System to the Makeup Mode is an ESF actuation which establishes a safer plant condition.

There have been similar occurrences of ESF actuations that were caused by noise spikes (LER 84-033-00, LER 85-002-00). Noise suppression devices were installed in these monitors in February of 1985. This has been the first occurrence of noise spiking since these devices were installed. Technical Staff inspected the monitor grounds, components, and internal connections and also tried to create noise by cycling contacts that have caused noise in the past, but noise spikes could not be created. See the attached list of items investigated. It is believed that the source of noise was external to the monitor.

A powerline analyzer was connected to monitor OPR34J on September 17, 1985. This device monitored AC input voltage and also detected any RF signals that occurred in the area of the monitor. The RF signal detecting module was removed from the monitor on October 4, 1985. RF signals were detected by the module but none of these RF signals caused a monitor noise spike. The powerline analyzer was removed on October 18, 1985. Several voltage fluctuations were recorded by the analyzer but none of these caused noise spikes. Since no noise spikes occurred over the period of time that the analyzer was connected to the monitor, the spikes on Sept. 8 and 11 are now believed to have been isolated occurrences. No further corrective action will be taken unless the problem recurs.

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TEXT

NOISE INVESTIGATION

Possible Cause

Action Taken

- |  |   |
|--|---|
| 1. Rad Chem filter change                                      | No filter changes in progress at time of actuations   |
| 2. Actual high radiation                                       | Spikes decayed too quickly to be an actual high radiation condition.  |
| 3. Undervoltage setpoint mod/ fluctuations in MCC power supply | Auto transformer was connected to monitor power supply; input voltage was varied from 120VAC to 90 VAC with no affect on monitor.   |
| 4. Flow control contacts/switch relay contacts in monitor      | Monitor was put into alarm and other operating conditions to cycle contacts, no noise spiking occurred.   |
| 5. Check source problems                                       | Multiple check sources were performed on each monitor, no alarms occurred.  |
| 6. Faulty electrical connections/ monitor ground               | All connections were inspected and wiggled and no noise spikes occurred.  |
| 7. Missing noise suppression devices                           | Both monitors were inspected and all noise suppression devices were installed in the correct locations.   |
| 8. Start up of large plant equipment                           | U-1, U-0, and U-2 Operating Logs were reviewed and no large equipment was started when the noise spikes occurred.   |
| 9. RF interference   | Radios were keyed in the area of the monitors; these produced no noise spikes. The power analyzer presently installed has detected RF signals but none have caused monitor interlocks.  |
| 10. Work area around monitor - noise induced from drills, etc. | Determined that drill could cause noise in monitor; a drill was started and run next to monitor but would not cause interlock; no other work was going on in area.  |
| 11. External noise   | Digital 0-scope was connected to monitor input voltage ground, flow control circuit, and detector circuit; point of noise was not detected or identified; power analyzer was also and is presently connected to monitor AC input voltage and RF signals; no noise signals have been detected. |



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

November 26, 1985

LTR: BYRON 85-1513

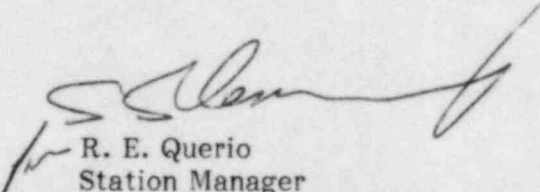
U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D.C. 10555

Dear Sir:

The enclosed Licensee Event Report from Byron Generating Station is being transmitted to you as a Supplemental Report to LER 85-088-00.

This report number is 85-088-01, Docket No. 50-454.

Very truly yours,

  
R. E. Querio  
Station Manager  
Byron Nuclear Power Station

REQ/CB/gt

Enclosure: Licensee Event Report No. 85-088-01

cc: J.G. Keppler, NRC Region III Administrator  
J. Hinds, NRC Resident Inspector  
INPO Record Center  
CECo Distribution List

#3/039

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