LICENSEE EVENT REPORT (LER)

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Title (4) REACTOR TRIP

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)
0 8	0 7	8 5	8 5	0 7 8	0 0	0 9	0 4	8 5		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9)	1
POWER LEVEL (10)	0 9 8

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

___ 20.402(b)	___ 20.405(c)	X 50.73(a)(2)(iv)	___ 73.71(b)		
___ 20.405(a)(1)(i)	___ 50.36(c)(1)	___ 50.73(a)(2)(v)	___ 73.71(c)		
___ 20.405(a)(1)(ii)	___ 50.36(c)(2)	___ 50.73(a)(2)(vii)	___ Other (Specify		
___ 20.405(a)(1)(iii)	___ 50.73(a)(2)(i)	___ 50.73(a)(2)(viii)(A)	in Abstract		
___ 20.405(a)(1)(iv)	___ 50.73(a)(2)(ii)	___ 50.73(a)(2)(viii)(B)	below and in		
___ 20.405(a)(1)(v)	___ 50.73(a)(2)(iii)	___ 50.73(a)(2)(x)	Text)		

LICENSEE CONTACT FOR THIS LER (12)

Name	TELEPHONE NUMBER
Paul Johnson, Master IM Ext. 2275	AREA CODE 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	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS
A	S B			N					

SUPPLEMENTAL REPORT EXPECTED (14)

		Expected Submission Date (15)	Month	Day	Year
___ Yes (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

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

With the plant operating in Mode 1 at 98% reactor power, a reactor trip on Power-Range High Negative Flux Rate occurred. The trip was generated due to personnel error on the part of a Control Systems Technician (CST) performing surveillance procedure BIS 3.1.1-214, Surveillance Calibration for the Nuclear Instrumentation System Power Range N41-N44, for channel N41. In the course of performing the surveillance, channel N41 was placed in "TEST". Subsequently, when the procedure directed that the detector cable be removed from the rear of the cabinet, the detector cable on channel N-42 was mistakenly removed. This inadvertent action provided the 2 of 4 coincidence to initiate the negative rate trip.

As a result of the trip and subsequent electrical realignment, a voltage transient resulted in actuation of Control Room Ventilation Isolation, Containment Ventilation Isolation and Fuel Handling Building Ventilation Switchover due to low voltage interlock conditions being sensed on their respective radiation monitors.

To prevent recurrence of the trip, this incident has been reviewed with all Instrument Maintenance personnel. In addition, the cables will have additional identification labels attached, and the surveillance procedures will be revised. The NIS cabinet locks have been uniquely keyed to prevent inadvertent access to the incorrect cabinet.

In addition, a modification is planned to reduce the Low Voltage Trip Setpoints, which may prevent HVAC realignment on future reactor trips.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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TEXT

On August 7, 1985 at 0914 CDT, Unit 1 was operating in Mode 1 at 98% power. Start up test 52-36-B, Delta I Calibrations, was in progress with surveillance procedure BIS 3.1.1-214, Surveillance Calibration for the Nuclear Instrumentation System N41-N44, being performed. In the course of performing the surveillance, a Control System Technician (CST) inadvertently initiated a Reactor Trip. As a result of the trip and subsequent electrical realignment, a voltage transient resulted in actuation of a Control Room Ventilation Isolation, Containment Ventilation Isolation, and Fuel Handling Building Ventilation switchover due to low voltage interlock conditions being sensed on their respective radiation monitors.

In accordance with the surveillance procedure, power range channel N41 was placed into TEST, generating a high negative flux rate signal for that channel. The procedure then called for removing the detector cables from the rear of the cabinet. The CST proceeded to the rear of the cabinet and, finding the door unlocked, assumed the CST from the previous shift had unlocked the door. The CST did not recognize that it was the door to the N42 channel that was unlocked. The CST proceeded to identify the cable to be removed. A second CST verified that the cable number matched the number identified within the procedure. The cable was then removed, which caused the second high negative flux rate trip signal to be generated and initiated the reactor trip by completing the 2 of 4 coincidence logic.

The cause of the trip is ascribed to personnel error. Although the CST's verified the proper cable number, both CST's failed to verify the proper cabinet number. Within the Nuclear Instrumentation System (NIS) Cabinets, similar cables have identical cable numbers without identifying the channel being served.

To preclude recurrence of this event, the importance of verifying the proper cabinet within a multi-channel system was reviewed within the Instrument Maintenance Department. In addition, the cables will have additional identification labels affixed and NIS surveillance procedures are being revised to uniquely identify the cables. AIR 6-85-314 was written to track completion. The cabinet locks have also been changed so that each is currently keyed uniquely as opposed to a single key being able to open all the cabinets as previously existed. A Modification is planned to reduce the Radiation Monitor Low Voltage Trip Setpoints, which should prevent HVAC realignment on future reactor trips.

While there has been a previous instance of a reactor trip during IM department surveillances, LER 85-029, it was not due to being on the incorrect equipment.

This event did not affect plant or public safety as plant systems responded properly to the trip signal.

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

September 4, 1985

LTR: BYRON 85-1222

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 85-078-00; Docket No. 50-454.

Very truly yours,

R. E. Querio
Station Manager
Byron Nuclear Power Station

REQ/gt

Enclosure: Licensee Event Report No. 85-078-00

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