

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 3

Title (4) TECHNICAL SPECIFICATION ACTION STATEMENT FOR POWER RANGE NUCLEAR INSTRUMENT NOT SATISFIED DUE TO PERSONNEL ERROR

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 6	3 0	8 6	8 6	0 1 9	0 0				NONE	0 5 0 0 0 0	

OPERATING MODE (9)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR (Check one or more of the following) (1)												
POWER LEVEL (10)	0 7 4	20.402(b)	20.405(c)	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 in Abstract below and in Text)
		20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

Name: Terence K. Schuster, Assistant Technical Staff Supervisor, Ext. 2244

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	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS
A									

SUPPLEMENTAL REPORT EXPECTED (14)

Expected Submission Date (15) Month | Day | Year

Yes (If yes, complete EXPECTED SUBMISSION DATE)  NO

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

At 0905 on 6/30/86 Technical Specification Limiting Condition for Operation Action Requirement (LCOAR) 3.1-1a was entered for one INOPERABLE power range nuclear instrumentation channel. The channel had been declared INOPERABLE to permit the performance of a channel calibration required by the Technical Specifications. The shift operating personnel assumed the surveillance would satisfy the action requirement of placing the channel in its fully tripped condition within 6 hours. At 2045 on 6/30/86 it was discovered that the channel was not fully tripped within 6 hours of declaring the channel inoperable, which was required by the LCOAR. The root cause of this event was a cognitive personnel error on the part of the shift operating personnel. Contributing to the personnel error was a procedural conflict between the surveillance procedure and the LCOAR. The channel calibration was satisfactorily completed and the channel restored to operable status at 2245 on 6/30/86. The surveillance procedure and the LCOAR procedure will be revised for consistency. This event was reviewed with the shift operating personnel involved and this LER will be included in the licensed operator required reading program.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			Page (3)		
		Year	Sequential Number	Revision Number			
Byron, Unit 1	0   5   0   0   0   4   5   4	8   6	-   0   1   9	-   0   0	0   2	QF	0   3

TEXT Energy Industry Identification System (EIIS) codes are identified in the text as [xx]

A. PLANT CONDITIONS PRIOR TO EVENT:

MODE 1 - Power Operation Rx Power 74% RCS [AB] Temperature/Pressure Normal Operating

B. DESCRIPTION OF EVENT:

At 0905 on 6/30/86 the surveillance calibration for the Nuclear Instrumentation System Power Range Channels N41-N44, procedure (BIS 3.1.1-214), was entered to perform the quarterly INCORE/EXCORE cross calibration alignment on Nuclear Instrumentation (NI) [IG] N41. At some point during the procedure's performance N41 would become inoperable, consequently the Technical Specification Limiting Condition for Operation Action Requirement (LCOAR) would have to be followed. In this case, entry into the Action Statement would not have been required until 1049 when instrument mechanics performed surveillance steps that genuinely prevented channel N41 from performing interlock and trip functions. The first action requirement for an inoperable Power Range Channel is to have all its respective bistables placed in a tripped condition within 6 hours. This is done by both pulling the control power fuses for the affected channel and by placing 2 bistable test switches in the TEST position. Operating personnel were cognizant of the action requirement. However it was assumed, as in other instrument surveillances, the action requirement would be fulfilled by performing the surveillance (BIS 3.1.1-214). Shift personnel were unaware that the surveillance methodology required the control power fuses to be installed, in direct conflict with the action requirement. This problem did not surface previously because normal surveillance execution time is usually less than 6 hours. This particular performance was delayed due to procedural problems with a temporary change made to it and the actual duration of the Temporary procedure. At 1500, the oncoming shift made the same assumption that the BIS satisfied the action requirement. Consequently, the surveillance was allowed to continue. At 2045, when actions were being taken to comply with the 12 hour action requirements, it was recognized that channel N41 had not been placed in a fully tripped condition. Shift personnel considered it appropriate to leave the fuses installed to complete the surveillance, since only a short time remained to complete the calibration and the completion of the calibration was necessary to restore the channel to OPERABLE status. The channel calibration was satisfactorily completed and the channel declared OPERABLE at 2245 on 6/30/86.

C. CAUSE OF EVENT:

The root cause of this event was cognitive personnel error on the part of licensed shift personnel. Neither shift positively verified the 6 hour action statement was being satisfied completely. Two contributing factors have been identified. Procedure BIS 3.1.1-214 directed actions which could result in direct conflict with the action statement for an INOPERABLE power range channel, without adequate caution about such actions. A second surveillance was being performed on the 1A ΔT/Tave Loop at the same time which resulted in numerous annunciators and bistable lights. This provided support for the shift personnel's incorrect assumption that the N41 channel was in a fully tripped condition by masking the fact some N41 bistables were not lit.

D. SAFETY ANALYSIS:

Plant and public safety were not compromised as a result of this event. The three operable channels, satisfying the minimum channels operable requirement, were totally capable of providing the trip functions.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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TEXT Energy Industry Identification System (EIIS) codes are identified in the text as [xx]

E. CORRECTIVE ACTIONS:

This event was reviewed with the shift personnel involved and this LER will be included in the licensed operator required reading program.

The requirement to have Control Power fuses installed for performance of the surveillance, in direct conflict with the action statement, is considered a problem unique to this particular surveillance. The following actions have or will be taken to correct this problem:

On July 1, 1986 a Daily Order was issued to shift personnel to clarify the action requirements for an inoperable Power Range channel and what are acceptable means of implementing them with respect to BIS 3.1.1-214.

A short version of surveillance BIS 3.1.1-214 will be developed, which is to be used on a quarterly basis to meet Technical Specification 92 day surveillance requirements. The procedure shall have a step to pull control power fuses within 6 hours of declaring the channel INOPERABLE, document the time and notify the Shift Engineer to assure Technical Specification compliance. This shortened procedure will be numbered BIS 3.1.1-226. Action Item Record (AIR) 6-85-415 follows its completion.

BIS 3.1.1-214 will be revised to meet the Technical Specification 18 month surveillance requirements. A caution statement, note or executable step to pull control power fuses within 6 hours of declaring the channel INOPERABLE, documentation of the time and notification of the Shift Engineer shall be included to assure Technical Specification compliance. (AIR 6-85-415).

LCOAR 3.1-1a will be revised to delineate specific actions required at various power levels and assurance that the pulling of control power fuses occurs within 6 hours (AIR 6-86-195).

F. PREVIOUS OCCURRENCES:

<u>LER NUMBER</u>	<u>TITLE</u>
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There has been no previous occurrences caused by the same or similar circumstances.

G. COMPONENT FAILURE DATA:

<u>MANUFACTURER</u>	<u>NOMENCLATURE</u>	<u>MODEL NUMBER</u>	<u>MFG PART NUMBER</u>
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Not Applicable



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

July 28, 1986

LTR: BYRON 86-0878

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)(i)(B) which requires a 30 day written report.

This report is number 86-019:00; Docket No. 50-454.

Very truly yours,

R. E. Querio  
Station Manager  
Byron Nuclear Power Station

REQ/JL/bf

Enclosure: Licensee Event Report No. 86-019-00

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

#3/017

*IE22*  
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Byron Nuclear Station  
4450 North German Church Road  
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Dm 0

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IE 22  
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Package date - 8608050326

JUL 31 1986

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POWER LEVEL (10) 0 7 4

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SUPPLEMENTAL REPORT EXPECTED (14)  YES (If yes, complete EXPECTED SUBMISSION DATE)  NO

Expected Submission Date (15) \_\_\_\_\_

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<u>MANUFACTURER</u>	<u>NOMENCLATURE</u>	<u>MODEL NUMBER</u>	<u>MFG PART NUMBER</u>
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Not Applicable