

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)										DOCKET NUMBER (2)				PAGE (3)			
BYRON, UNIT 1										0 5 0 0 0 4 5 4				1 OF 0 2			

TITLE (4)											
BORON DILUTION PROTECTION ACTUATION											

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	1	27	84	84	019	00	12	27	84						0	5	0	0	0				
1	1	27	84	84	019	00	12	27	84						0	5	0	0	0				

OPERATING MODE (S)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)									
6		20.402(b)		20.406(e)	<input checked="" type="checkbox"/>	50.73(a)(2)(iv)		73.71(b)			
POWER LEVEL (10)	0 0 0	20.406(a)(1)(i)		50.38(a)(1)		50.73(a)(2)(v)		73.71(c)			
		20.406(a)(1)(ii)		50.38(a)(2)		50.73(a)(2)(vi)					
		20.406(a)(1)(iii)		50.73(a)(2)(i)		50.73(a)(2)(viii)(A)		OTHER (Specify in Abstract below and in Text, NRC Form 365A)			
		20.406(a)(1)(iv)		50.73(a)(2)(ii)		50.73(a)(2)(viii)(B)					
		20.406(a)(1)(v)		50.73(a)(2)(iii)		50.73(a)(2)(x)					

LICENSEE CONTACT FOR THIS LER (12)					
NAME	TELEPHONE NUMBER				
William E. Smith, Technical Staff Engineer, Ext. 607	<table border="1"> <tr> <td>AREA CODE</td> <td></td> </tr> <tr> <td>815</td> <td>213 41-15 4141</td> </tr> </table>	AREA CODE		815	213 41-15 4141
AREA CODE					
815	213 41-15 4141				

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)											
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	
B	I G	C H A I	W l 2 O	N							

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
<input checked="" type="checkbox"/> YES // If yes, complete EXPECTED SUBMISSION DATE/	<input type="checkbox"/> NO		01	30	81

ABSTRACT (Limit to 1400 spaces, i.e. approximately fifteen single-space typewritten lines) (18)

On 11/27/84 (2 events), 11/28/84, and 12/2/84, the Boron Dilution Protection System actuated resulting in a charging pump suction switchover to the RWST. The actuation in each case was determined to have been caused by a noise spike seen on the Source Range channels. After determination by shift personnel that no dilution transient was in progress, and clearance of the BDPS alarm, the normal charging pump suction valve line-up was restored. Westinghouse has been contacted to investigate a means of filtering out noise spikes.

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PDR ADDCK 05000454
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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES 8/31/85

FACILITY NAME (1) BYRON, UNIT 1	DOCKET NUMBER (2) 0 5 0 0 0 4 5 4	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		8 4	1 0 6	0 0	0 2	OF 0 2

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

On four separate occasions while in Mode 5 performing post-core loading pre-criticality tests and surveillances, the Boron Dilution Protection Systems (BDPS) actuated resulting in a charging pump suction valve switchover as designed. In each case, the actuation was caused by noise spiking on the Source Range channels. The actuations occurred on 11/27/84 at 0746, on 11/27/84 at 1540, on 11/28/84 at 1135, and on 12/2/84 at 1458.

Currently, if a noise spike of sufficient amplitude and duration occurs to trip the Boron Dilution Protection System (flux doubling in ten minutes or less) the charging pump suction switchover occurs. This is a conservative occurrence which poses no safety hazard to the plant or public.

Byron Station has requested Westinghouse to determine the feasibility of filtering the input to BDPS to eliminate or reduce the actuations resulting from spiking or to modify the BDPS microprocessor software to include some type of smoothing algorithm to provide a time delay in BDPS response to step input changes (spikes).

There have been no previous similar events.



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

December 26, 1984

LTR: Byron 84-1566

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 10CFR 50.73. (a) (2) (iv) which requires a 30 day written report.

This report is number 84-019-00, Docket No. 50-454.

Very truly yours,

R. E. Querio
Station Superintendent
Byron Nuclear Power Station

REQ/vde

Enclosure: Licensee Event Report No. 84-019-00

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

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