



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

October 31, 1994

LTR: BYRON 94-0428
FILE: 3.03.0800 (1.10.0101)

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).

This report is number 94-013; Docket No. 50-454.

Sincerely,

G.K. Schwartz
Station Manager
Byron Nuclear Power Station

GKS/DSK/bl

Enclosure: Licensee Event Report No. 94-013

cc: J. Martin, NRC Region III Administrator
NRC Senior Resident Inspector
INPO Record Center
CECo Distribution List

080095

(9911R/WPF/102594-6)

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SIGNATURE PAGE FOR LICENSE EVENT REPORT

LER Number

454: 94-013

Title of Event: SX Basin Level Switch Breaker Left in Wrong Position After Maintenance

Occurred: 10/10/94 / 2149
Date Time

OSR DISCIPLINES REQUIRED:

ABG

SG / 10/27/94
SES DATE

Acceptance by Station Review:

[Signature] / 10/27/94
OE Date

[Signature] / 10/27/94
SES ABFG Date

[Signature] / 10/27/94
RAS AG Date

[Signature] / 10-27-94
OTHER Date
AB

Approved by:

[Signature] / 11/3/94
Station Manager Date

LICENSEE EVENT REPORT (LER)

FACILITY NAME BYRON NUCLEAR POWER STATION UNIT 1										DOCKET NUMBER 0 5 0 0 0 4 5 4					PAGE 1 OF 0 4			
TITLE SX BASIN LEVEL SWITCH BREAKER LEFT IN WRONG POSITION AFTER MAINTENANCE																		
EVENT DATE			LER NUMBER				REPORT DATE			OTHER FACILITIES INVOLVED								
MONTH	DAY	YEAR	YEAR	SEQ. NUMBER	REVISION	MONTH	DAY	YEAR	FACILITY NAMES Byron Unit 2				DOCKET NUMBER(S) 0 5 0 0 0 4 5 5					
1	0	1	0	9	4	9	4	-	0	1	3	-	0	0				
OPERATING MODE 6			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (CHECK ONE OR MORE OF THE FOLLOWING)															
POWER LEVEL 0			20.402(b)				20.405(e)				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, NRC Form 366A)			
			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)(ix)										
LICENSEE CONTACT FOR THIS LER																		
NAME BRADLEY G. JACOBSEN, OPERATIONS DEPARTMENT, EXT. 2622										TELEPHONE NUMBER 8 1 5 2 3 4 - 5 4 4 1								
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT																		
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS									
				N														
SUPPLEMENTAL REPORT EXPECTED										EXPECTED SUBMISSION DATE								
<input type="checkbox"/> YES, (If yes, complete EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO										MONTH DAY YEAR DATE								

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

Abstract:

On October 7, 1994, the Limiting Condition for Operation for Technical Specification 3.7.5 was entered in conjunction with an Auxiliary Power Unit Substation (AP) outage which de-energized a level switch associated with Essential Service Water (SX)(BI) Makeup Pump auto start capabilities. When reenergizing the Unit Substation, Operations believed the level switch was also reenergized and the Limiting Conditions were exited. It was later discovered that a breaker, opened during maintenance, had prevented the level switch from being reenergized and that operations had occurred outside of the requirements of Technical Specifications for a duration of 9 hours and 50 minutes.

This event is reportable per 10CFR50.73(a)(2)(i)(B) as operations prohibited by Technical Specifications.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME	DOCKET NUMBER	LER NUMBER			PAGE		
BYRON NUCLEAR POWER STATION		YEAR	SEQ. NUMBER	REVISION			
	0 5 0 0 0 4 5 4	9 4	0 1 3	0 0		0 2	OF 0 4

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

A. PLANT CONDITIONS PRIOR TO EVENT:

Event Date/Time 10/10/94 / 2149

Unit 1 MODE 6 - Refueling Rx Power 0% RCS [AB] Temperature/Pressure 86°F

Unit 2 MODE 1 - Power Ops Rx Power 99% RCS [AB] Temperature/Pressure NOT/NOP

B. DESCRIPTION OF EVENT:

At 0322 hrs on October 7, 1994, the Operating Department entered the Limiting Condition for Operation under Technical Specification 3/4.7.5 due to the removal of Unit Substation 132Z Auxiliary Power (AP) from service which deenergized level switch OLS-SX097. This level switch controls the auto start capability of the OB Essential Service Water (SX)[BI] Make Up Pump on low SX cooling tower basin level. Its electrical feed comes from the 120 VAC circuit breaker panel located on Motor Control Center (MCC) 132Z1. There is a permanent label associated with the 120 VAC breaker to alert Operators to its function and importance.

The Limiting Condition for Operation of Technical Specification 3.7.5.e requires that when two operable basin level switches are not available after 73 hours, both basin levels must be verified greater than or equal to 82% every 2 hours. These checks began at 0419 hrs on October 10, 1994.

The outage on Unit Substation 132Z was to allow Electrical Maintenance to perform cleaning and inspection on the buswork and breakers at the Unit Substation. With the Unit Substation deenergized, all associated electrical equipment fed by the Unit Substation was also deenergized. The Electrical Maintenance Department used the opportunity to also perform cleaning and inspection on MCC 132Z1 which is fed by this Unit Substation. This inspection involves exercising the breakers and inspecting wiring internal to the breaker cubicles.

During the inspection, cubicle D-1, the breaker for the 480 volt supply to the transformer that supplies the 120 VAC circuit breaker panel, was taken to the OFF (Open) position. When the inspection was complete, this breaker was not returned to the ON (Closed) position.

Prior to returning the Unit Substation to service, Operators performed a check of the Unit Substation equipment to ensure that it was in the proper configuration for operations. MCC132Z1 stands directly across from the Unit Substation so a quick check of the MCC was also performed to see that no breakers had been inadvertently bumped during the work on the Unit Substation. The operators performing this check did not know that the MCC had also been worked on, as the Return to Service was for the Unit Substation. When checking the breaker positions, the Operator scanned down section A, up section B, down section C, and coming to section D with his eyes focused at the bottom of the panel, did not detect breakers so moved to section E and continued his check. The only 480 Volt breaker in Section D is the D-1 breaker, located approximately 7 feet from the floor. Having missed this breaker in his check, the Operator did not realign it to the required ON (Closed) position. At 1008 hrs on October 10, Unit Substation 132Z was Returned to Service. This reenergized MCC 132Z1 and it was thought that the level switch was also reenergized, so the Limiting Condition for Operation of Technical Specification 3.7.5.e were exited. The last check of the basin level was performed at 1001 hrs.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME	DOCKET NUMBER	LER NUMBER			PAGE		
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TEXT Energy Industry Identification System (EIS) codes are identified in the text as [XX]

B. DESCRIPTION OF EVENT: (cont.)

During third shift on October 10, an Operator was investigating a HVAC System alarm. The alarm response procedure had the Operator check the power supply of an ionization detector that was causing the alarm. The power supply for this detector came from the same 120 VAC panel that is fed through the D-1 Breaker. The Operator opened the cover on the 120 VAC circuit breaker panel and found the breaker for the ionization detector to be ON (Closed). He then noticed that the upstream D-1 breaker was open. Seeing the label at the 120 VAC breaker for the SX Basin level switch, the operator realized the implications and notified the Control Room of the problem. The Limiting Conditions of Technical Specification 3.7.5 were entered at 2149 hrs and at 2151 hrs the 480 Volt D-1 breaker was turned ON (Closed) reenergizing the level switch and the Limiting Condition for Operation of Technical Specification 3.7.5 was exited.

With the last previous check of the SX Basin level having occurred at 1001 hrs, the next sequential check was required at 1201 hrs. With operability reestablished at 2151, the Limiting Condition for Operation for Technical Specification had not been met for a duration of 9 hours and 50 minutes.

This event is reportable per 10CFR50.73(a)(2)(i)(B) as operations prohibited by Technical Specifications.

C. CAUSE OF EVENT:

The cause of this event was the failure of the Electrical Maintenance Department to return the equipment to Operating Department in the same configuration as it was received.

D. SAFETY ANALYSIS:

There were no safety consequences impacting plant or public safety as a result of this event. SX basin levels remained above the low level setpoint throughout the event.

E. CORRECTIVE ACTIONS:

As an immediate corrective action, the D-1 breaker on MCC 132Z1 was placed in the ON (Closed) position reenergizing the SX Basin level switch.

As a long term corrective measure, a checklist is being developed to document the "as found, as left" position of equipment manipulated during the inspection and cleaning of Motor Control Centers by the Electrical Maintenance Department. NTS #454-180-94-01300-01

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	0 5 0 0 0 4 5 4	9 4 -	0 1 3 -	0 0	0 4	OF 0 4

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

F. RECURRING EVENTS SEARCH AND ANALYSIS:

No previous similar occurrences have been documented.

G. COMPONENT FAILURE DATA:

None