

Commonwealth Edison Company  
Byron Generating Station  
4450 North German Church Road  
Byron, IL 61010-9794  
Tel 815-234-5441

**ComEd**

DATE November 30, 1995

LTR: BYRON 95-0383  
FILE: 3.03.0800 (1.10.0101)

U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D.C. 20555

Dear Sir:

The Enclosed Supplemental Licensee Event Report from Byron  
Generating Station is being transmitted to you in accordance with the  
requirements of 10CFR50.73(a)(2)(i)(B).

This report is number 95-002S1; Docket No. 50-455.

Sincerely,

*M Snow for*  
K. L. Kofron  
Station Manager  
Byron Nuclear Power Station

KLK/PW/ba

Enclosure: Licensee Event Report No. 95-002S1

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

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SIGNATURE PAGE FOR LICENSEE EVENT REPORT

LER Number  
455:95-002S1

Title of Event: Extraction Steam Valve Maintenance Without LCOAR Entry Due to Personnel Error

Occurred: 03-31-95 / 0430  
Date Time

License Contact: F.ich Wurz/Bill Pirnat

OSR DISCIPLINES REQUIRED: ABG

SG / 11/29/95  
SES DATE

Acceptance by Station Review:

R. Weyant / ABG / 11/30/95  
OE Disciplines Date

[Signature] / ABFG / 11/29/95  
SES Disciplines Date

[Signature] / ABG / 11/25/95  
RAS Disciplines Date

[Signature] / AG / 11/30/95  
Other Disciplines Date

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
Other Disciplines Date

Approved by: M. Snow / 11/30/95  
Station Manager Date

NRC FORM 366 (4-95)		U.S. NUCLEAR REGULATORY COMMISSION			APPROVED BY OMB NO. 3150-0104 EXPIRES 04/30/98						
<b>LICENSEE EVENT REPORT (LER)</b>					ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.						
(See reverse for required number of digits/characters for each block)											
FACILITY NAME (1) <b>BYRON NUCLEAR POWER STATION</b>				DOCKET NUMBER (2) <b>05000455</b>		PAGE (3) <b>1 OF 4</b>					
TITLE (4) <b>EXTRACTION STEAM VALVE MAINTENANCE WITHOUT LCOAR ENTRY DUE TO PERSONNEL ERROR</b>											
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 NAME	DOCKET NUMBER	
03	31	95	95	-- 002	-- 01	11	30	95	NONE	05000	
OPERATING MODE (9) <b>1</b>		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more) (11)									
POWER LEVEL (10) <b>52%</b>		20.2201(b)			20.2203(a)(2)(v)			<input checked="" type="checkbox"/> 50.73(a)(2)(i)		50.73(a)(2)(viii)	
		20.2203(a)(1)			20.2203(a)(3)(i)			50.73(a)(2)(ii)		50.73(a)(2)(x)	
		20.2203(a)(2)(i)			20.2203(a)(3)(ii)			50.73(a)(2)(iii)		73.71	
		20.2203(a)(2)(ii)			20.2203(a)(4)			50.73(a)(2)(iv)		OTHER	
		20.2203(a)(2)(iii)			50.36(c)(1)			50.73(a)(2)(v)		Specify in Abstract below or in NRC Form 366A	
		20.2203(a)(2)(iv)			50.36(c)(2)			50.73(a)(2)(vii)			
LICENSEE CONTACT FOR THIS LER (12)											
NAME <b>E. WURZ, REGULATORY ASSURANCE DEPT., EXT. 2249 W. PIRNAT, TRAINING DEPT., 4190</b>						TELEPHONE NUMBER (Include Area Code) <b>815-234-5441</b>					
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											
E											
SUPPLEMENTAL REPORT EXPECTED (14)						EXPECTED SUBMISSION DATE (15)			MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)				<input checked="" type="checkbox"/> NO							

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On March 30, 1995, at approximately 2230 hours, Mechanical Maintenance personnel initiated repairs to adjust packing on Extraction Steam Non-return Check Valve 2ES002 (ES) [SE]. On March 31, 1995, at about 1000 hours, it was observed that post maintenance tests were pending for valve 2ES002. Upon notifying Shift Operating personnel of the pending tests, a Shift Supervisor realized the Technical Specification Limiting Condition for Operation Action Requirement (LCOAR) was not entered prior to work on the valve.

The Shift Supervisor initiated surveillance 2BOS 3.4.2.c-1, "Extraction Steam Non-return Check Valve Monthly Surveillance." The partial surveillance was successfully completed at 1025 hours on March 31 and the valve was declared operable. The cause of this event was cognitive personnel error by the Shift Supervisor who authorized the work request and failed to recognize that valve 2ES002 was Technical Specification related.

This event is reportable per 10CFR50.73(a)(2)(i)(B) - any operation or condition prohibited by the plant's Technical Specifications as Action Requirement 3.3.4.b which states that the turbine must be isolated from the affected steam supply within 6 hours was missed.

NRC FORM 366A (4-95)		U.S. NUCLEAR REGULATORY COMMISSION			
LICENSEE EVENT REPORT (LER) TEXT CONTINUATION					
FACILITY NAME (1)		DOCKET	LER NUMBER (6)		PAGE (3)
BYRON NUCLEAR POWER STATION		05000455	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER
			95	-- 002	-- 01

TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

A. PLANT CONDITIONS PRIOR TO EVENT:

Event Date/Time 03/31/95 / 0430

Unit 1, MODE 1 - Pwr Op Rx Power 98% RCS [AB] Temperature/Pressure NOP/NOT

Unit 2 MODE 1 - Pwr Op Rx Power 52% RCS [AB] Temperature/Pressure NOP/NOT

B. DESCRIPTION OF EVENT:

On March 29, 1995, Minor Maintenance Work Request 950030410 was generated to repair a steam leak on Extraction Steam Non-return Check Valve 2ES002 (ES) [SE]. Mechanical Maintenance personnel brought this work package for Shift Authorization to begin work. The Operating Shift Supervisor authorized the work packages at about 1300 hours. Valve 2ES002 is a nonsafety-related valve but is Technical Specification related. The cover sheet of the work package denoted the valve as such.

When authorizing the work package for 2ES002, the Shift Supervisor failed to review it for being Technical Specification related and subsequently did not pursue entering Limiting Condition for Operation Action Requirement (LCOAR) 2BOS 3.4-1a, "LCOAR, Instrumentation, Turbine Overspeed Protection." Technical Specification Action Requirement 3.3.4.b states that when the overspeed protection system is inoperable the turbine must be isolated from the affected steam supply within 6 hours. Per Technical Specification Interpretation, this action requirement can be met by closing the associated Motor Operated Valve 2ES001 or Manual Isolation Valves 2ES003A and 2ES003B.

The actual packing repair work began about 2230 hours on March 30, 1995. The work was signed off as being completed at 2313 hours. At that point, the Electronic Work Control System (EWCS) status for this work package was updated to reflect work was complete and tests were pending.

At approximately 1000 hours on March 31, 1995, an individual in the Work Control Center contacted Operating Shift personnel regarding the tests pending for this work package. Knowing that LCOARs were entered on previous repair work for the Extraction Steam Non-return Check Valves, a different Shift Supervisor identified that the appropriate LCOAR had not been entered. The Action Requirement was not met as no isolation of the Extraction Steam valve was performed. At 1014 hours, this Shift Supervisor initiated surveillance 2BOS 3.4.2.c-1, "Extraction Steam Non-return Check Valve Monthly Surveillance." At 1025 hours, the partial surveillance was successfully completed verifying operability of the valve.

This event is reportable per 10CFR50.73(a)(2)(i)(B) - any operation or condition prohibited by the plant's Technical Specifications as Action Requirement 3.3.4.b which states that the turbine must be isolated from the affected steam supply within 6 hours was missed.

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

C. CAUSE OF EVENT:

The cause of this event is cognitive personnel error by the Shift Supervisor who authorized the work request. The Shift Supervisor did not adequately review the work package for Technical Specification applicability. Per Byron Administrative Procedure BAP 1600-1, one of the responsibilities of the Licensed Senior Reactor Operator (SRO), when authorizing work to begin, is to identify relevant Technical Specification requirements.

A contributing factor was the elimination of a stamp highlighting work packages which may require LCOAR entry. As corrective action from a similar event in 1987, this highly visible stamp was used by Operating Engineers to alert Shift personnel of possible LCOAR entry. During 1994, Byron Station implemented the Electronic Work Control System (EWCS). When EWCS was being implemented, this stamp was discontinued via On-Site Review 94-030 as authorization was intended to be "electronic" and a stamp could not be used.

D. SAFETY ANALYSIS:

The valve remained capable of performing its intended function as demonstrated by the partial surveillance 2BOS 3.4.2.c-1. The safety of the plant and the public was not affected by this event.

E. CORRECTIVE ACTIONS:

- a). The Shift Supervisor has been counselled on his responsibilities regarding work request authorization.
- b). The work request approval page generated by the Electronic Work Control System (EWCS) has been revised to reflect a better human factored format. There is now a specific section delineating Operations critical data. Technical specification applicability is identified in this section. In addition, containment isolation and fire protection applicability is identified. A further enhancement is a reference to the actual technical specification section. This Operation's sign in review section is directly above the signature block.
- c). This LER and its corrective actions were presented in requalification training for the licensed and non-licensed operators. Additionally, the licensed operator requalification training classes had a technical specification challenge test that reinforced the matter of extraction steam check valves and technical specification applications.

F. PREVIOUS OCCURRENCES:

- LER 455-87-004: Missed Technical Specification Action Requirement on Containment Isolation Valves Due to Personnel Error
- LER 455-92-005: LCOAR Inadvertently Not Entered
- PIR 454-200-94-052: LCOAR Not Initiated When Repairing Containment Isolation Valve

LICENSEE EVENT REPORT (LER)  
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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

F. PREVIOUS OCCURRENCES: (contd.)

Each of the three previous events are related to this event in terms of the type of failure.

LER 455-87-004 resulted from the SCREs not recognizing valves were containment isolation valves when authorizing the work packages. Corrective action from that event included establishing a list of containment isolation valves and the use of a highly visible stamp by Operating Engineers reviewing work requests to alert Shift personnel of possible LCOAR entry.

LER 455-92-005 occurred when an Operating Engineer failed to identify the 2ES002 valve as being Technical Specification related. Thus, the work package was not stamped, and the Shift Operating personnel failed to enter a LCOAR upon authorizing the work. Corrective action from that event included updating the list of containment isolation, ISI, and Technical Specification valves to identify equipment which had caused previous confusion regarding LCOAR requirements.

PIR 454-200-94-052 occurred when a Shift Engineer failed to recognize work would be performed on a containment isolation valve. Prior to that event, Byron had implemented the Electronic Work Control System (EWCS). With EWCS, an On-Site Review approved the discontinuation of the stamp highlighting work packages that may require possible LCOAR entry. As one of the goals of EWCS was "electronic" authorization of work requests, the use of a stamp would not be possible when full electronic authorization replaced hard copy authorization. The individual valves from the containment isolation, ISI, Technical Specification list, however, were included in the EWCS database. Corrective action included a memorandum to Shift SRO personnel on paying attention to these fields on a work package.

G. COMPONENT FAILURE:

No Components Failed