

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

**ComEd**

DATE October 11, 1995

LTR: BYRON 95-0342  
FILE: 3.03.0800 (1.10.0101)

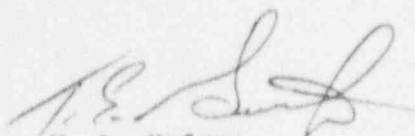
U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D.C. 20555

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)(B).

This report is number 95-003; Docket No. 50-454.

Sincerely,



K. L. Kofron  
Station Manager  
Byron Nuclear Power Station

KLK/PW/ba

Enclosure: Licensee Event Report No. 95-003

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

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A Unicom Company

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SIGNATURE PAGE FOR LICENSEE EVENT REPORT

LER Number  
454: 95-0003

Title of Event: Containment Leak Detector Inoperable

Occurred: 09-13-95 / 0813  
Date Time

Licensee Contact: B. Jacobsen

OSR DISCIPLINES REQUIRED: ABC

[Signature] / 9-27-95  
SES DATE

Acceptance by Station Review:

[Signature] / ABC / 10/6/95  
OE Disciplines Date

[Signature] / ABC / 10-2-95  
SES Disciplines Date

[Signature] / ABC / 10/11/95  
RAS Disciplines Date

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

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

Approved by: [Signature] / 11/1/95  
Station Manager Date

## LICENSEE EVENT REPORT (LER)

FACILITY NAME BYRON NUCLEAR POWER STATION										DOCKET NUMBER 0 5 0 0 0 4 5 4				PAGE 1 OF 0 5	
TITLE CONTAINMENT LEAK DETECTOR INOPERABLE															
EVENT DATE			LER NUMBER			REPORT DATE			OTHER FACILITIES INVOLVED						
MONTH	DAY	YEAR	YEAR	SEQ. NUMBER	REVISION	MONTH	DAY	YEAR	FACILITY NAMES None		DOCKET NUMBER(S) 0 5 0 0 0				
0	9	1 3 9 5	9 5	- 0 0 3	- 0 0	1	0 1 1	9 5			0 5 0 0 0				
OPERATING MODE		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (CHECK ONE OR MORE OF THE FOLLOWING)													
1		20.402(b)			20.405(e)			50.73(a)(2)(iv)		73.71(b)					
POWER LEVEL		20.405(a)(1)(i)			50.36(c)(1)			50.73(a)(2)(v)		73.71(c)					
0 9 8		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)(x)							
LICENSEE CONTACT FOR THIS LER															
NAME B. JACOBSEN, OPERATING ROOT CAUSE, 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						
SUPPLEMENTAL REPORT EXPECTED								EXPECTED SUBMISSION DATE		MONTH	DAY	YEAR			
<input type="checkbox"/> YES. (If yes, complete EXPECTED SUBMISSION DATE)								<input checked="" type="checkbox"/> NO							

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

Review of Unit logs identified two occurrences where the Unit 1 Containment Atmosphere Radioactive Gas and Particulate Monitor and Unit 1 Containment Floor Drain Leak Detector Flow Loop were inoperable at the same time. These occurrences were determined to be in violation of Technical Specification 3.4.6.1 which provides guidance for operations with the Containment Atmosphere Radioactive Gas and Particulate Monitor or the Containment Floor Drain Leak Detector Flow Loop inoperable, but does not specifically address operations where both are inoperable at the same time.

The root cause of this event was a misinterpretation of Technical Specification requirements by the Shift Control Room Engineers involved as a result of interpretable formatting of the applicable Technical Specification.

To prevent recurrence, a Daily Order has been written and training is being provided to communicate the Station's interpretation of the requirements of Technical Specification 3.4.6.1 to all Licensed Operators. Procedures for tracking compliance with Technical Specification 3.4.6.1 will be revised to prohibit multiple ACTION Statement entries, and Technical Specification Guidance is being developed as a reference for future operations.

These occurrences are reportable per 10CFR 50.73(a)(2)(i)(B) due to entry into Technical Specification 3.0.A (3.0.3).

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

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

**A. PLANT CONDITIONS PRIOR TO EVENT:**

Event Date/Time 09-13-95 / 0813

Unit 1 MODE 1 - Power Operations Rx Power 98.5% RCS [AB] Temperature/Pressure NOT/NOP

Unit 2 MODE 1 - Power Operations Rx Power 99.9% RCS [AB] Temperature/Pressure NOT/NOP

**B. DESCRIPTION OF EVENT:**

At 0813 hrs on 09/13/95, an Instrument Mechanic came to the Shift Control Room Engineer's (SCRE's) Desk in the Main Control Room to obtain Operations Department Shift Management's approval to begin a calibration on the Unit 1 Containment Atmosphere Radioactive Gas and Particulate Monitor (1PR11J). The Duty SCRE (SCRE #1) reviewed the Technical Specifications that applied for this activity, Limiting Condition for Operation 3/4.3.3.1 and 3/4.4.6.1, ACTION c. SCRE #1 gave his approval to the Instrument Mechanic and entered 1BOS 3.3.1-1a and 1BOS 4.6.1-1a, the Station documents used for tracking Limiting Condition for Operation ACTION Statement entry. The Instrument Mechanic left to begin the calibration, which was being performed under Instrument Maintenance Surveillance 1BIS 3.3.1-214.

At 1104 hrs on 09/13/95, a different Instrument Mechanic came to the SCRE's Desk to obtain Operations Department Shift Management's approval to begin a calibration on the Containment Floor Drain Leak Detector Flow Loop (1RF008). SCRE #1 reviewed the Technical Specification that applied for this activity, also contained in Technical Specification Limiting Condition for Operation 3/4/.4.6.1, under ACTION b. SCRE #1 was aware of the current Limiting Condition for Operation ACTION Statement in effect. When reviewing the Technical Specification, SCRE #1 interpreted the Technical Specification to allow more than one Limiting Condition for Operation ACTION Statement to be entered at the same time as long as all applicable ACTION Statement requirements were met. SCRE #1 therefore allowed the Instrument Mechanic to proceed with the intended calibration activity on the Containment Floor Drain Leak Detector Flow Loop. This work was performed under Nuclear Work Request #950081354 using Instrument Maintenance Surveillance 1BIS 4.6.1.B-200.

When the Instrument Maintenance crew working on the Unit 1 Containment Atmosphere Radioactive Gas and Particulate Monitor completed their activities for the day, they returned the monitor to normal operation and logged out at the SCRE's Desk. Multiple Limiting Condition for Operation ACTION statements were in effect until 1351 hrs for a total of 2 hours and 47 minutes on 09/13/95.

Secondary leakage in Unit 1 Containment had been trending up over the past weeks. At the request of the Operating Engineers, a Primary System Leakrate was being performed every eight hours, as a conservative measure. At 1850 hrs on 09/14/95, the Unit 1 Nuclear Station Operator received the "CNMT LEAK DETECT FLOW HIGH" alarm at the Main Control Panel for Unit 1. This was determined to be a valid alarm by verifying the flowrate at the Main Control Board Flow Recorder, 1FR-RF008 to be 1.6 gallons per minute. This measured flow includes leakage from Primary and Secondary leakage. A Primary Leakrate was performed to ensure leakrates were still within the allowable range. This was verified and a work request, WR# 950081354, was generated to reset the alarm setpoints in line with the newly verified flowrate to regain the alarm function. This setpoint reset would allow Operations to receive the alarm if the current flowrate increased, alerting Operators to a possible increase in RCS leakage. 1BOS 4.6.1-1a, ACTION b. was entered because of the loss of alarm function.

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

**B. DESCRIPTION OF EVENT:** (cont.)

At 0817 hrs on 09/15/95, an Instrument Mechanic came to the SCRE's Desk in the Main Control Room to obtain Operations Department Shift Management's approval to recommence the calibration of the Unit 1 Containment Atmosphere Radioactive Gas and Particulate Monitor under 1BIS 3.3.1-214. The Duty SCRE (SCRE #2) reviewed Technical Specification 3/4.3.3.1 and 3/4.4.6.1. When reviewing the Technical Specification, SCRE #2 also interpreted the Technical Specification to allow more than one Limiting Condition for Operation ACTION Statement to be entered simultaneously as long as all ACTION statement requirements were met. SCRE #2 was confident in this decision because this application method is used for other Instrumentation Technical Specifications. SCRE #2 entered 1BOS 3.3.1-1a and 1BOS 4.6.1-1a, ACTION c. and allowed the Instrument Mechanic to proceed with the intended calibration activity on the Unit 1 Containment Atmosphere Radioactive Gas and Particulate Monitor.

At 1347 hrs on 09/15/95, when the Instrument Maintenance crew working on the Unit 1 Containment Atmosphere Radioactive Gas and Particulate Monitor under 1BIS 3.3.1-214 completed their activities for the day, they returned the monitor to normal operation and logged out at the SCRE's Desk. Multiple Limiting Condition for Operations ACTION Statements were in effect a total of 5 hours and 30 minutes on 09/15/95.

On Monday, 09/18/95, the Flow Instrument setpoints had not yet been reset and Limiting Condition for Operation ACTION b., tracked by 1BOS 4.6.1-1a, was still in effect. An Instrument Mechanic came to the SCRE's Desk requesting permission to recommence calibration activities on the Unit 1 Containment Atmosphere Radioactive Gas and Particulate Monitor. The Duty SCRE (SCRE #3), aware of the 1BOS 4.6.1-1a Limiting Condition for Operation ACTION Statement currently in effect, reviewed the applicable Technical Specification and interpreted the Technical Specification in a way that would place the multiple ACTION Statement entries outside of the Limiting Condition for Operations allowed, requiring implementation of Technical Specification 3.0.3. SCRE #3 told the Instrument Mechanic that the Unit 1 Containment Atmosphere Radioactive Gas and Particulate Monitor calibration would have to be done at another time. The Instrument Mechanic questioned this decision, informing SCRE #3 that these same conditions had existed the previous week, and that both jobs had been allowed to proceed at that time. SCRE #3 explained that he was not comfortable with allowing the work to proceed and would not authorize the work to begin. The Instrument Mechanic accepted the decision and returned to the shop.

SCRE #3 discussed the application of this Technical Specification with other Control Room Personnel and with Shift Management. He found discrepancies during these discussions in individual interpretations on how the Technical Specification should be applied to multiple ACTION statement entries. SCRE #3 continued to analyze the application of this Technical Specification. He realized that there had been incidences in the past where the Containment Floor Drain Leak Detector Flow Loop had been inoperable and the daily changeout of filters on the Unit 1 Containment Atmosphere Radioactive Gas and Particulate Monitor had been allowed. SCRE #3 initiated a Problem Information Form (PIF) to have an investigation into these events performed and to resolve the differences in interpretations on how the Technical Specification should be applied.

Upon review of the basis for implementing the controls of Technical Specification 3.0.3, Byron Station has determined that these Limiting Condition for Operation entries are outside the intent of Technical Specification 3/4.4.6.1. This application placed the Unit in Technical Specification 3.0.3, which requires action be initiated within one hour to bring the effected Unit to at least HOT STANDBY within the next 6 hours, at least HOT SHUTDOWN within the following 6 hours, and to at least COLD SHUTDOWN within the subsequent 24 hours.

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		YEAR	SEC. NUMBER	REVISION						
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TEXT Energy Industry Identification System (EIS) codes are identified in the text as [XX]

**B. DESCRIPTION OF EVENT:** (cont.)

No manual or automatic safety system actuations occurred as a result of these events. Stable plant conditions were maintained at all times.

These occurrences are reportable per 10CFR 50.73(a)(2)(i)(B) due to entry into Technical Specification 3.0.A (3.0.3).

**C. CAUSE OF EVENT:**

The cause of these events was misinterpretation of how a Technical Specification should be applied, as specific guidance for the situation was not provided in the Technical Specification. SCRE #1 and SCRE #2 viewed the inoperability of the Unit 1 Containment Atmosphere Radioactive Gas and Particulate Monitor (1PR11J) and the Containment Floor Drain Leak Detector Flow Loop (1RF008) as separate items, each having specific ACTION Statement requirements. SCRE #1 and SCRE #2 felt that as long as those specific ACTION requirements were met for each of the individual instruments, we were in compliance with the Technical Specification and continued operation was allowed.

**D. SAFETY ANALYSIS:**

There was no impact on the health and safety of the public as a result of this event.

VCT Level is frequently monitored and would have given indication of any gross increase in Primary System leakage, should this have occurred. Primary System Leakrate was being performed every eight hours prior to and during these periods to identify any adverse trend in Primary System leakage. Redundant methods of obtaining Containment radiation levels were in place, available, and would have alarmed if high Containment radiation levels had developed during these periods where multiple ACTION Statements were in effect.

**E. CORRECTIVE ACTIONS:**

1. A Daily Order was immediately written to identify and define to Operations the correct interpretation of Technical Specification 3.4.6.1.
2. Training is being provided to communicate correct interpretation of Technical Specifications requiring entry into 3.0.A (3.0.3) and Technical Specification 3.4.6.1.
3. Operating Department procedures for tracking compliance with Technical Specification 3.4.6.1 will be revised to prohibit multiple ACTION Statement entries. NTS #454-180-95-0003-01 will track this item to completion.
4. Technical Specification Guidance is being developed as a reference for future operations. NTS #454-180-95-0003-02 will track this item to completion.

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

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

**F. RECURRING EVENTS SEARCH AND ANALYSIS:**

- a). None found
- b). None found
- c). None found
- d). No events could be found documenting missinterpretation of Technical Specifications resulting in entry into the Limiting Condition For Operating ACTION for Technical Specification 3.0.3.

**G. COMPONENT FAILURE DATA:**

None.