

DEVIATION INVESTIGATION REPORT

TITLE U-1 Recombiner INOP												PAGE 1 OF 0 2																
EVENT DATE			DVR					REPORT DATE				OPERATING MODE																
MONTH	DAY	YEAR	STA	UNIT	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	4																	
0	2	0	3	8	5	0	4	0	1	8	5	-	0	0	9	-	0	0	0	3	0	1	8	5	POWER LEVEL	1	0	0
CONTACT FOR THIS DIR																												
NAME A. Blamey										TELEPHONE NUMBER			EXT															
										AREA CODE																		
										3		0	9	6		5	4	-	2	2	4	1	1	7	8			
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT																												
CAUSE	SYSTEM	COMPONENT	MANUFAC TURER	REPORTABLE TO NPROS		CAUSE	SYSTEM	COMPONENT	MANUFAC TURER	REPORTABLE TO NPROS																		
X	W	F	T	R																								
			L	1	3	0	Y																					
SUPPLEMENTAL REPORT EXPECTED										EXPECTED SUBMISSION DATE		MONTH	DAY	YEAR														
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO																												

Deviation Description

On Sunday, February 3, 1985 Unit One was in the RUN mode operating at 100 percent rated core thermal power when the ejector off gas flow recorder spiked high. This flow spike indicated that a recombination occurred somewhere in the off gas system (WF) other than in the recombiner (RCB). (This usually indicates an "ignition" with a small pressure surge upstream of the flow element at the air ejector.)

While performing QOA 5450-6, Off Gas Recombination at a Location Other Than the Recombiner, the Nuclear Station Operator (NSO) observed a low temperature reading on the recombiner. The recombiner was then declared inoperable. At this time, temporary procedure no. 2408, Explosive Gas Mixture Surveillance, was started as per Technical Specification 3.8.A.5.

After the completion of QOA 5450-6, the ejector off gas flow returned to normal. This flow, however, was higher than the reading from the flow meter on the off-gas hold up line. This flow element is downstream of the recombiner. This indicated that recombination was occurring in the recombiner based on the principle that hydrogen and oxygen, when combined, occupy less volume. Using the above flow data, the NSO concluded that the problem was with the recombiner temperature recorder and not the recombiner; however, to be conservative, the recombiner was declared inoperable.

The instrument maintenance department tested the temperature recorder (TR) and found the recorder was out of calibration. The temperature recorder was recalibrated and became operational on February 3, 1985. The total time the temperature recorder was inoperative was 15 hours and 8 minutes. During the time the temperature recorder was inoperative 136,200 standard cubic feet and 3.5 curies of waste gasses were discharged via this pathway. However, all waste gasses were processed because the recombiner remained functional, only the temperature recorder was inoperable.

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Deviation Investigation Report

04-01-85-009

Page 2 of 2

The temperature recorder was inoperable for a period less than the 48 hour time limit given in Technical Specification 3.8.A.5.b. Thus, safety consequences of this incident were minimal.

Cause

The cause of this deviation was the temperature recorder. The instrument maintenance department tested the recorder and found it was out of calibration. The temperature recorder is a Leeds and Northrup Speedomax recorder, Type W, Serial No. E72-39402-7-1.

Corrective Action

Immediate corrective action was to initiate the Explosive Gas Mixture Surveillance (temporary procedure 2408). The temperature recorder was recalibrated and returned to service on February 3, 1985.

Procedure QOA 5450-6 is being revised so that voltage reading will be taken over the recombiner's thermocouple to verify operability of the recombiner when the temperature recorder is inoperable

Failure history of this component indicates that this is not a recurrent problem, therefore, no further corrective action is considered at this time.



Commonwealth Edison

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NJK-85-73

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

Reference: Quad-Cities Nuclear Power Station
Docket Number 50-254, DPR-29, Unit One

Enclosed please find Deviation Investigation Report (DVR) 04-01-85-009, Revision 0, for Quad-Cities Nuclear Power Station.

This report is submitted to you in lieu of a Licensee Event Report in accordance with the requirements of Technical Specification 3.8.A.6; operation above 30 percent of rated thermal power with one Recombiner inoperable.

Respectfully,

COMMONWEALTH EDISON COMPANY
QUAD-CITIES NUCLEAR POWER STATION

N. J. Kalivianakis
Station Superintendent

NJK:HQD/bb

Enclosure

cc B. Ryback
A. Madison
INPO Records Center
NRC Region III

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