

**WOLF CREEK**  
NUCLEAR OPERATING CORPORATION

John A. Bailey  
Vice President  
Operations

December 12, 1991

NO 91-0346

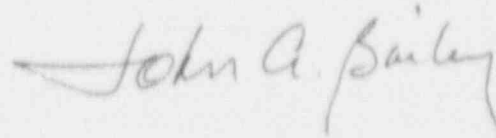
U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Mail Station P1-137  
Washington, D. C. 20555

Subject: Docket No. 50-482: Licensee Event Report 91-022-00

Gentlemen:

The attached Licensee Event Report (LER) is being submitted pursuant to 10 CFR 50.73 (a) (2) (i) concerning a Technical Specification violation.

Very truly yours,



John A. Bailey  
Vice President  
Operations

JAB/aem

Attachment

cc: A. T. Howell (NRC), w/a  
R. D. Martin (NRC), w/a  
G. A. Pick (NRC), w/a  
W. D. Reckley (NRC), w/a

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*Handwritten initials/signature*

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) **Wolf Creek Generating Station** DOCKET NUMBER (2) **0 5 0 0 0 4 8 2 1** PAGE (3) **1** OF **0 4**

TITLE (4) **Technical Specification Violation - Failure To Verify That The Emergency Diesel Generators Are Capable Of Rejecting A Load Of 1352 kW.**

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)															
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	DOCKET NUMBER (5)															
1	1	1	2	9	1	9	1	9	1	0	2	2	0	0	1	2	9	1	0	5	0	0	0	1

OPERATING MODE (9) **6** THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR : (Check one or more of the following) (11)

POWER LEVEL (10) <b>0 0 0</b>	20.402(b)	20.405(c)	50.79(a)(2)(iv)	79.71(b)
	20.405(a)(1)(i)	50.36(c)(1)	50.79(a)(2)(v)	79.71(c)
	20.405(a)(1)(ii)	50.36(c)(2)	50.79(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 3664)
	20.405(a)(1)(iii)	<input checked="" type="checkbox"/> 50.72(a)(2)(i)	50.72(a)(2)(viii)(A)	
	20.405(a)(1)(iv)	50.72(a)(2)(ii)	50.79(a)(2)(viii)(B)	
	20.405(a)(1)(v)	50.72(a)(2)(iii)	50.79(a)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
<b>Merlin G. Williams - Manager Plant Support</b>	<b>3 1 6 3 6 4 - 8 8 3 1</b>

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRRDS

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE)  NO

EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR

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

On November 12, 1991, at 2003 CST with the unit in Mode 6, Refueling, the Control Room was informed that the requirements of Technical Specification 4.8.1.1.2.g.2 could not be satisfied for Emergency Diesel Generator (EDG) "B". This Technical Specification requires that the diesel generator be capable of rejecting a load greater than or equal to 1352 kilowatts (kW) (Essential Service Water (ESW) Pump) while maintaining voltage and frequency within specific limits. It was subsequently determined that this Technical Specification requirement had also not been satisfied for EDG "A" since the surveillance did not require verification that the ESW pump load was equal to or greater than 1352 kW prior to doing the load rejection of the ESW pump.

The root cause of this event was that only the load description and not the numerical value of the load was incorporated into surveillance procedures STS KJ-001A and STS KJ-001B. To ensure that a similar condition does not exist for other Technical Specification surveillance requirements, a review will be performed to identify those surveillance requirements that specify numerical values and ensure that the applicable procedures accomplish them. This review will be completed by March 30, 1992.

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Wolf Creek Generating Station	0 5 0 0 0 4 8 2 9 1	-	0 2 2	-	0 0 0 2 of 0 4

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

**INTRODUCTION**

On November 12, 1991, at 2003 CST with the unit in Mode 6, Refueling, the Control Room was informed that the requirements of Technical Specification 4.8.1.1.2.g.2 could not be satisfied for Emergency Diesel Generator (EDG) "B". This Technical Specification requires that the EDG be capable of rejecting a load greater than or equal to 1352 kilowatts (kW) (Essential Service Water (ESW) Pump) while maintaining voltage and frequency within specific limits. It was subsequently determined that this Technical Specification requirement had also not been satisfied for EDG "A". Therefore, this event is being reported pursuant to 10 CFR 50.73(a)(2)(i) as a condition prohibited by the plant's Technical Specifications.

**DESCRIPTION OF EVENT**

Surveillance procedure STS KJ-001A, "Integrated D/G and Safeguards Actuation Test - Train A", and STS KJ-001B, "Integrated D/G and Safeguards Actuation Test - Train B", are accomplished, in part, to demonstrate EDG "A" and "B" operability pursuant to Technical Specification 4.8.1.1.2.g.2. This specific Technical Specification comes from the requirement to demonstrate proper operation during EDG load shedding by verifying that the voltage requirements are met and that the overspeed limits are not exceeded after the loss of the largest single load. An ESW pump is the largest single load. According to Updated Safety Analysis Report Figure 8.3-2, the ESW pump is rated at 1352 kW during the injection phase of a Loss of Coolant Accident and a Black-Out condition.

During the performance of surveillance procedure STS KJ-001A on November 10, 1991, water hammering occurred during the ESW pump load rejection portion of the procedure. Following investigations on how to preclude water hammering from occurring during the performance of STS KJ-001B, concerns were raised about whether a load rejection of 1352 kW is actually accomplished to satisfy the Technical Specification 4.8.1.1.2.g.2 requirement. STS KJ-001A and STS KJ-001B only required the rejection of an ESW pump with no reference to 1352 kW. Because flow in the ESW system had been altered for a plant modification, it was indeterminate if the rejection of 1352 kW was being met. Therefore, STS KJ-001B was revised to determine the exact load on EDG "B" during the loss of the ESW pump. On November 12, 1991, at 2003 CST, the Control Room was informed that the surveillance procedure indicated that the ESW pump was only drawing approximately 1290 kW.

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TEXT CONTINUATION

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		0	2	2	0	0	0	3	OF	0	4

NOTE: If more space is required, use additional NRC Form 308A's (17)

On November 13, 1991, at 1215 CST, following an evaluation of past performances of STS KJ-001A and STS KJ-001B, EDGs "A" and "B" were declared inoperable due to the failure to meet Technical Specification 4.8.1.1.2.g.2 requirements. It was determined that past performances of STS KJ-001A and STS KJ-001B may not have satisfied the 1352 kW load rejection criteria of the Technical Specification. As required by Technical Specification 3.8.1.2, core alterations, positive reactivity changes, movement of irradiated fuel, and crane operation with loads over the spent fuel pool were suspended since both EDGs were inoperable while the plant was in Mode 6.

At 1608 CST, it was determined that the proper load to satisfy Technical Specification 4.8.1.1.2.g.2 could be obtained by full ESW flow to the Containment Air Coolers [BK-CLR], Component Cooling Water Heat Exchangers [CC-HX], and opening the ESW/Service Water Cross Connect valves [BI-V]. Surveillance procedures STS KJ-001A and STS KJ-001B were revised to reperform the tests with the added flows. At 0205 CST, EDG "B" was declared operable after successfully rejecting a load of 1356 kW and Technical Specification 3.8.1.2 was exited. On November 15, 1991, at 0040 EDG "A" was declared operable after successfully rejecting a load of 1403 kW.

ROOT CAUSE AND CORRECTIVE ACTIONS

The root cause of this event was that only the load description and not the numerical value of the load was incorporated into surveillance procedures STS KJ-001A and STS KJ-001B. Technical Specification 4.8.1.1.2.g.2 refers to both 1352 kW and an ESW pump when referencing the largest single load. Only the reference to the ESW pump was incorporated into the surveillance procedures. To ensure that a similar condition does not exist for other Technical Specification surveillance requirements, a review will be performed to identify those surveillance requirements that specify numerical values and ensure that the applicable procedures accomplish them. This review will be completed by March 30, 1992.

A change to Technical Specification 4.8.1.1.2.g.2 will be submitted for Nuclear Regulatory Commission approval to clarify the loading of the ESW pumps by July 1, 1992. Until this Technical Specification change is made, surveillance procedures STS KJ-001A and STS KJ-001B have been revised to indicate that 1352 kW must be rejected to satisfy Technical Specification 4.8.1.1.2.g.2 requirements.

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TEXT CONTINUATION

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Wolf Creek Generating Station	0500048291	-	022	-	00	04 of 04

TEXT (if more space is required, use additional NRC Form 366A's) (17)

ADDITIONAL INFORMATION

Although it is indeterminate whether 1352 kW was rejected in past performances of STS KJ-001A and STS KJ-001B, the rejection of an ESW pump, which is the largest load, has been successfully performed in the past. Surveillance procedures STS KJ-001A and STS KJ-001B also require that the EDG be capable of rejecting a load of 6201 kW without tripping. This portion of the surveillance procedures has been successfully completed in the past.

There are no known previous occurrences in which a numerical value from a Technical Specification has not been incorporated into a surveillance procedure.