

WOLF CREEK

NUCLEAR OPERATING CORPORATION

John A. Bailey
Vice President
Operations

June 21, 1991

NO 91-0169

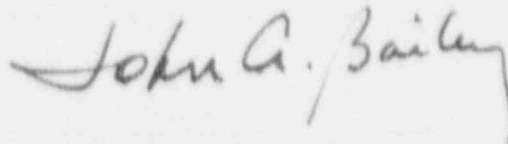
U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Station P1-137
Washington, D. C. 20555

Subject: Docket No. 50-482: Licensee Event Report 91-007-00

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: L. L. Gundrum (NRC), w/a
A. T. Howell (NRC), w/a
R. D. Martin (NRC), w/a
D. V. Pickett (NRC), w/a

JE227 11

LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20545, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1): Wolf Creek Generating Station										DOCKET NUMBER (2): 0 5 0 0 0 4 8 2 1				PAGE (3): 1 OF 0 3									
TITLE (4): Technical Specification Violation - Inadequate Testing of Component Cooling Water to Reactor Coolant Pump Thermal Barrier Check Valves																							
EVENT DATE (5):			LER NUMBER (6):				REPORT DATE (7):			OTHER FACILITIES INVOLVED (8):													
MONTH	DAY	YEAR	EAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES				DOCKET NUMBER(S)										
0	5	2	2	9	1	9	1	0	0	7	0	0	0	6	2	1	9	1	0	5	0	0	0
OPERATING MODE (9): 1		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11):																					
POWER LEVEL (10): 1610		20.402(a)				20.406(e)				50.73(a)(2)(iv)				73.71(a)									
		20.405(a)(1)(ii)				50.38(a)(1)				50.73(a)(2)(v)				73.71(a)									
		20.405(a)(1)(iii)				50.38(a)(2)				50.73(a)(2)(vi)				OTHER (Specify in Abstract below and in Text, NRC Form 366A)									
		20.405(a)(1)(iv)				50.73(a)(2)(i)				50.73(a)(2)(vii)(A)													
		20.405(a)(1)(v)				50.73(a)(2)(ii)				50.73(a)(2)(viii)(B)													
		20.408(a)(1)(iv)				50.73(a)(2)(iii)				50.73(a)(2)(ix)													
LICENSEE CONTACT FOR THIS LER (12):																							
NAME: Merlin G. Williams - Manager Plant Support										TELEPHONE NUMBER:													
										AREA CODE: 3116		3164-181831											
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13):																							
CAUSE	SYSTEM	COMPONENT	MANUFAC TURE	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFAC TURE	REPORTABLE TO NRC														
SUPPLEMENTAL REPORT EXPECTED (14):										EXPECTED SUBMISSION DATE (15):		MONTH		DAY		YEAR							
YES (if yes, complete EXPECTED SUBMISSION DATE):										X NO													

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

On May 22, 1991, it was discovered that Inservice Testing (IST) procedure STS EG-206, Revision 0, "Component Cooling Water System Inservice Valve Test", does not adequately test the Component Cooling Water to Reactor Coolant Pump Thermal Barrier Check Valves in their closed position because of an inadequate test boundary. This test deficiency, which has been present in the five times this test has been performed, is contrary to Technical Specification 4.0.5.

This test deficiency resulted from personnel not providing sufficient technical content during initial development of the IST procedure. The root cause of this initial test deficiency could not be determined because the personnel involved are no longer employed by Wolf Creek Nuclear Operating Corporation. Because of this deficiency and other identified deficiencies that did not result in noncompliance, a complete technical review of IST procedures will be performed. Certain Inservice Inspection Program procedures will also be included among this review.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555 AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503

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

INTRODUCTION

On May 22, 1991, it was discovered that surveillance test procedure STS EG-206, Revision 0, "Component Cooling Water System Inservice Valve Test", does not adequately test Component Cooling Water (CCW) to Reactor Coolant Pump (RCP) Thermal Barrier Check Valves BB V0122, BB V0152, BB V0182 and BB V0212 [AB-V] in their closed position. The failure to adequately test these valves is contrary to Technical Specification 4.0.5, which requires testing in accordance with ASME Section XI for these valves. Therefore, this occurrence 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

Technical Specification 4.0.5 requires, in part, that inservice testing of ASME Code Class 1, 2, and 3 pumps and valves be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda.

On May 22, 1991, while determining the impact a proposed design change would have on procedure STS EG-206, Revision 0, "Component Cooling Water System Inservice Valve Test", the Inservice Testing (IST) engineer discovered that STS EG-206 does not adequately test CCW to RCP Thermal Barrier Check Valves BB V0122, BB V0152, BB V0182 and BB V0212 in their closed position. This test involves applying pressure downstream of the check valves while a pressure gauge upstream of the valve monitors leak-by of the valves (evident by a rapid increase in pressure). The deficiency of this test results from the presence of unisolated flowpaths upstream of the check valves, therefore a pressure increase would not be detected and a failed check valve would not be identified.

The requirement to perform STS EG-206 comes from the IST Program Plan as required by Subsection IWV of ASME Section XI. A review of the history of the testing performed on these valves revealed that this testing methodology has been utilized since March, 1985 (receipt of fuel load license). Testing of these valves has been performed on March 1, 1985, December 4, 1986, November 19, 1987, November 30, 1988 and May 2, 1990. STS EG-206 is currently being revised. However, because STS EG-206 is only performed while the plant is in Mode 5, Cold Shutdown, or Mode 6, Refueling, the four check valves will be tested per the revised surveillance test procedure prior to startup during Refuel V.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (F630), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)

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

ROOT CAUSE AND CORRECTIVE ACTIONS

This test deficiency resulted from personnel not providing sufficient technical content during initial development of the IST procedure. The root cause of this initial test deficiency could not be determined because the personnel involved are no longer employed by Wolf Creek Nuclear Operating Corporation. The test methodology deficiency has persisted through subsequent procedure reviews.

In 1989, a review of procedures implementing Technical Specification Surveillance Requirements was conducted to confirm that the requirements were procedurally addressed. However, because of the extensive reviews performed in support of the Inservice Inspection (ISI) and IST Program development, the scope of the 1989 review did not include procedures implementing Technical Specification 4.0.5. The deficiency discussed in this report is the first identified test deficiency in the IST Program that has resulted in noncompliance with Technical Specification 4.0.5. Because of this deficiency and other identified deficiencies that did not result in noncompliance, a complete technical review of IST procedures will be performed to ensure their technical adequacy and ASME code compliance. This review will utilize guidance in Generic Letter 89-04, "Guidance On Developing Acceptable Inservice Testing Programs". IST procedures which are performed during refueling outages will be reviewed prior to Refuel V, which is scheduled to begin in September, 1991. All other IST procedures will be reviewed by March 31, 1992.

Technical Specification 4.0.5 also governs surveillance procedures performed under the ISI Program. These procedures include those used for performance of weld inspections, pressure testing and hydrostatic testing. ISI procedures for performing weld inspections and pressure tests have recently been reviewed and revised as necessary. Procedures for performing hydrostatic testing will be reviewed for technical adequacy prior to their next scheduled performance.

ADDITIONAL INFORMATION

During the time period covered by this report the plant operated in Mode 6, Refueling, through Mode 1, Power Operation.

Component Cooling Water is supplied to the thermal barrier to limit the heat transfer from the Reactor Coolant System to the reactor coolant pump radial bearing and seals. The CCW to Thermal Barrier check valves are installed to prevent backflow of high pressure reactor coolant into the lower pressure CCW System if the thermal barrier cooling coil (AB-CCL) were to rupture. The consequences of a thermal barrier check valve failure are bound by the existing small break loss of coolant accident analysis. Therefore, the failure to correctly test these valves does not compromise plant safety.