

WOLF CREEK

NUCLEAR OPERATING CORPORATION

Donna Jacobs
Plant Manager

JUN 17 2002

WO 02-0030

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

Subject: Docket No. 50-482: Licensee Event Report 2002-002-00, Technical Specification Violation


Gentlemen:

The enclosed Licensee Event Report (LER) 2002-002-00 is being submitted pursuant to 10 CFR 50.73(a)(2)(i)(B). On April 25, 2002, Wolf Creek Generating Station (WCGS) entered Mode 3 from Mode 4 contrary to Technical Specification Limiting Condition for Operation (LCO) 3.0.4, which specifies that the plant cannot change modes when LCO is not met. A mode change was made with the Reactor Coolant System unidentified leakage exceeding the Technical Specification limit.

Wolf Creek Nuclear Operating Corporation has made no commitments in the enclosed LER.

If you should have any questions regarding this submittal, please contact me at (620) 364-4246 or Mr. Tony Harris at (620) 364-4038.

Very truly yours,



Donna Jacobs

DJ/r/r

Enclosure

cc: J. N. Donohew (NRC), w/e
D. N. Graves (NRC), w/e
E. W. Merschoff (NRC), w/e
Senior Resident Inspector (NRC), w/e

IE 22

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

Estimated burden per response to comply with this mandatory information collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to bjs1@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202 (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

1. FACILITY NAME WOLF CREEK GENERATING STATION	2. DOCKET NUMBER 05000482	3. PAGE 1 OF 3
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4. TITLE
Mode Change with RCS Unidentified Leakage Greater than Technical Specification 3.4.13

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
04	25	2002	2002	-- 002	-- 00	6	17	2002	FACILITY NAME	DOCKET NUMBER

9. OPERATING MODE	4	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 50. (Check all that apply)							
		20.2201(b)	20.2203(a)(3)(ii)	50.73(a)(2)(ii)(B)	50.73(a)(2)(ix)(A)				
10. POWER LEVEL	0	20.2201(d)	20.2203(a)(4)	50.73(a)(2)(iii)	50.73(a)(2)(x)				
		20.2203(a)(1)	50.36(c)(1)(i)(A)	50.73(a)(2)(iv)(A)	73.71(a)(4)				
		20.2203(a)(2)(i)	50.36(c)(1)(ii)(A)	50.73(a)(2)(v)(A)	73.71(a)(5)				
		20.2203(a)(2)(ii)	50.36(c)(2)	50.73(a)(2)(v)(B)	OTHER				
		20.2203(a)(2)(iii)	50.46(a)(3)(ii)	50.73(a)(2)(v)(C)	Specify in Abstract below or in NRC Form 366A				
		20.2203(a)(2)(iv)	50.73(a)(2)(i)(A)	50.73(a)(2)(v)(D)					
		20.2203(a)(2)(v)	X 50.73(a)(2)(i)(B)	50.73(a)(2)(vii)					
		20.2203(a)(2)(vi)	50.73(a)(2)(i)(C)	50.73(a)(2)(viii)(A)					
20.2203(a)(3)(i)	50.73(a)(2)(ii)(A)	50.73(a)(2)(viii)(B)							

12. LICENSEE CONTACT FOR THIS LER

NAME Karl A. (Tony) Harris, Manager Regulatory Affairs	TELEPHONE NUMBER (Include Area Code) (620) 364-4038
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13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX

14. SUPPLEMENTAL REPORT EXPECTED				15. EXPECTED SUBMISSION DATE		
YES (If yes, complete EXPECTED SUBMISSION DATE)	X	NO		MONTH	DAY	YEAR

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

On April 24, 2002, while in Mode 4, Wolf Creek Nuclear Operating Corporation (WCNOC) personnel completed surveillance procedure STS BB-004, "RCS Water Inventory Balance." A calculational (rounding) error resulted in the conclusion that the Reactor Coolant System (RCS) (EIS system code AB) unidentified leakage was within the Technical Specification (TS) limit of 1.0 gpm. The unidentified leakage was actually 1.091 gpm, or .091 gpm above the TS limit.

On April 25, 2002, Wolf Creek Generating Station (WCGS) entered Mode 3 from Mode 4 contrary to TS Limiting Condition of Operation (LCO) 3.0.4. This specifies that the plant cannot change modes when an LCO is not met. The calculational error made in STS BB-004 was not recognized until after the mode change. When the error was recognized, TS 3.4.13, "RCS Operational LEAKAGE," Condition A, was entered. The source of the leakage was identified and corrected. On April 26, 2002, the leak rate was 0.31 gpm, and Condition B of TS 3.4.13 was exited.

This event is reportable per 10 CFR 50.73(a)(2)(i)(B) as a violation of the plant's Technical Specifications.

The root cause of this event was inadequate procedural guidance for performing RCS leakage calculations.

No impact on personal, nuclear, or radiological safety resulted from this event.

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

Plant Conditions Prior to the Event:

MODE – 4
Power -- 0 percent
Temperature and Pressure – 350 degrees; 390 psig

Event Description:

On April 24, 2002, at 2023 hours, while in Mode 4, Wolf Creek Nuclear Operating Corporation (WCNOC) personnel completed surveillance procedure STS BB-004, "Reactor Water Inventory Balance." The licensed operator performing the calculation rounded the pressurizer level initial and final readings to whole numbers. The calculation resulted in a value less than the required Technical Specification (TS) 3.4.13, "RCS Operational LEAKAGE," limit of 1.0 gpm for Reactor Coolant System (RCS) (EIS system code AB) unidentified leakage.

On April 25, 2002, at 0712 hours, Wolf Creek Generating Station (WCGS) entered Mode 3 from Mode 4. Subsequently on April 25, 2002, the Surveillance Coordinator reviewed the STS BB-004 procedure performed on April 24, 2002, and identified a calculation error. A recalculation determined that the TS limit of 1.0 gpm RCS unidentified leakage had been exceeded. The unidentified leakage was actually 1.091 gpm, or .091 gpm above the TS limit.

On April 25, 2002, at 2300 hours, the Control Room Shift Manager entered TS 3.4.13, Condition A, Required Action A.1, to reduce RCS leakage to within limits within four (4) hours.

On April 25, 2002, at 2326 hours, WCNOC personnel identified leakage past the "A" Seal Injection Filter to the vent and drain piping sections. Chemical Volume and Control (BG system) (EIS system code CB) valves BGV0346, 0273, 0271, and 0272 were closed an additional ¼ turn each.

On April 26, 2002, at 0300 hours, Control Room personnel entered TS 3.4.13, Condition B, due to an inability to verify RCS leakage within the four (4) hours specified by Required Action A.1. Condition B was entered because steady state plant conditions could not be achieved for performing surveillance test STS BB-004. The RCS water inventory balance calculation is performed at steady state conditions to provide an accurate indication of RCS leakage. Required Action B.2 requires the plant to be in Mode 5 within 36 hours. Procedure STS BB-004 was performed satisfactorily after achieving steady state plant conditions. On April 26, 2002, at 1010 hours, Control Room personnel exited Condition B of TS 3.4.13 since LCO 3.4.13 was met.

Basis for Reportability:

TS LCO 3.0.4 states: "When an LCO is not met, entry into a MODE or other specified condition in the Applicability shall not be made except when the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time. This Specification shall not prevent changes in MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit."

Entry into Mode 3 with RCS leakage greater than 1.0 gallons per minute constituted a violation of TS LCO 3.0.4. Violation of LCO 3.0.4 is reportable per 10 CFR 50.73(a)(2)(i)(B), "Any operation or condition which was prohibited by the plant's Technical Specifications." NUREG 1022, "Event Reporting Guidelines, 10 CFR

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

50.72 and 50.73," Revision 2, further explains: LCO statements that include action statements (required actions and associated completion time in TS) provide constraints on the length of time that components or systems may remain inoperable or out of service before the plant must be shut down or other compensatory measures must be taken. In this event, the required LCO was not met, so compensatory measures were taken to correct the violated TS.

Root Cause:

The root cause of this event has been determined to be inadequate procedural guidance to ensure consistent results of RCS leakage calculations. Relevant procedures contained no guidance on significant digits and rounding, nor is that guidance included in any of the Licensed Operator classes.

Corrective Actions:

As an immediate action, Control Room personnel entered appropriate Conditions/Required Actions of TS 3.4.13, "RCS Operational LEAKAGE." This returned the plant to compliance with TS. WCNOG personnel identified leakage on the "A" Seal Injection Filter to the vent and drain piping sections. Valves BGV0346, 0273, 0271, and 0272 were closed an additional 3/4 turn each. The surveillance procedure was performed again and the RCS unidentified leakage was less than the TS limit of 1.0 gpm for unidentified leakage.

Additional corrective actions to address the root cause of this event are being addressed in the WCNOG corrective action program. The first corrective action is to revise surveillance procedure STS BB-004 to provide additional calculational guidance to determine unidentified RCS leakage. The second corrective action is that the Licensed Operator training lesson plans will be evaluated for enhancement.

Safety Significance:

The safety significance of this event is low. At the time of this event, all mitigating systems were functional. Systems that would have provided indications of excessive leakage were operable. Various indicators of different levels of the water inventory remained functional throughout the event and would have detected increased inventory loss. Pursuant to TS, RCS leakage is calculated at least every 72 hours.

The actual RCS leak rate was minor. The allowed unidentified leakage is 1.0 gpm; the actual amount was 1.091 gpm, which existed for approximately 30 hours from the time of the first test completion to the leakage identification.

Previous Events

No previous events of inadequate procedural guidance causing a calculational error leading to a TS violation were identified.