WOLF CREEK
NUCLEAR OPERATING CORPORATION

Donna Jacobs
Plant Manager

MAR 12 2004

WO 04-0012

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

Subject: Docket No. 50-482: Licensee Event Report 2004-001-00, Inadequate Verification of Valve Position Following Testing Results in Technical Specifications Violation

Gentlemen:

The enclosed Licensee Event Report (LER) 2004-001-00 is being submitted pursuant to 10 CFR 50.73(a)(2)(i)(B) regarding an inoperability of the Containment Spray System at Wolf Creek Generating Station for a period greater than that allowed by Technical Specifications.

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

If you have any questions concerning this matter, please contact me at (620) 364-4246, or Mr. Kevin Moles at (620) 364-4126.

Very truly yours,

Donna Jacobs

DJ/pab

Enclosure

cc: J. N. Donohew (NRC), w/e
D. N. Graves (NRC), w/e
B. S. Mallett (NRC), w/e
Senior Resident Inspector (NRC), w/e

IE22

NRC FORM 366 (7-2001) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104 EXPIRES 7-31-2004

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.

LICENSEE EVENT REPORT (LER)

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

1. FACILITY NAME	2. DOCKET NUMBER	3. PAGE
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4. TITLE

Inadequate Verification of Valve Position Following Testing Results in Technical Specifications Violation

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
01	15	2004	2004	– 001	– 00	03	12	2004		05000
									FACILITY NAME	DOCKET NUMBER 05000

9. OPERATING MODE	1
10. POWER LEVEL	100

11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)

20.2201(b)	20.2203(a)(3)(ii)	50.73(a)(2)(ii)(B)	50.73(a)(2)(ix)(A)
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 Specify in Abstract below or in NRC Form 366A
20.2203(a)(2)(iii)	50.46(a)(3)(ii)	50.73(a)(2)(v)(C)	
20.2203(a)(2)(iv)	50.73(a)(2)(i)(A)	50.73(a)(2)(v)(D)	
20.2203(a)(2)(v) ✔	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	TELEPHONE NUMBER (Include Area Code)
Kevin J. Moles, Manager Regulatory Affairs	(620) 364-4126

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	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	✔	NO				

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

On January 15, 2004, at 8:30 PM, central standard time, containment spray system [EIIS: BE] isolation valve [EIIS: ISV] EN-V025 was found locked in the fully open position. The containment spray system was declared inoperable in accordance with Technical Specification (TS) 3.6.6. Valve EN-V025 was closed and the containment spray system was declared operable at 8:51 PM on January 15, 2004. This valve was unlocked and opened on December 30, 2003, during the performance of the containment spray pump inservice pump test for train B, which is controlled by procedure STS EN-100B. This procedure requires that after this test has been completed, valve EN-V025 is to be restored to closed and locked, and subsequently verified to be closed and locked.

This condition existed prior to discovery for a period greater than 72 hours, the allowed Completion Time associated with Required Action A.1 of TS 3.6.6. As such, this situation represents a condition prohibited by Technical Specifications, and is reportable per 10 CFR 50.73(a)(2)(i)(B).

The root cause for valve EN-V025 being in the incorrect position is lack of information validation or verification. The two nuclear station operators did not adequately validate information, and did not adequately verify the information (i.e., valve position).

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

Background:

The containment spray system [EIIS: BE] is one of the engineered safety features systems designed to directly mitigate the consequences of a loss of coolant accident or main steam line break inside the containment by ensuring the containment integrity and limiting fission product releases to the environment. Isolation valve [EIIS: ISV] EN-V025 is opened during the containment spray pump inservice pump test to allow diversion of the pump discharge from the containment spray nozzles to the refueling water storage tank (RWST) [EIIS: BP]. After pump testing is complete, procedures require valve EN-V025 to be closed and locked prior to returning the containment spray system to service.

Plant Conditions Prior to the Event:

MODE - 1
Power - 100%
Normal Operating Temperature and Pressure

Event Description:

On January 15, 2004, at 8:30 PM, central standard time, isolation valve EN-V025 was found locked in the fully open position by a non-licensed nuclear station operator (NSO). The control room was notified and the containment spray system was declared inoperable due to valve EN-V025 being open. An immediate review of other equipment out of service indicated no equipment was inoperable in the opposite train. Valve EN-V025 was placed into the required position of locked closed and the containment spray system was declared operable at 8:51 PM on January 15, 2004.

A search of work history revealed that valve EN-V025 was last manipulated on the night shift of December 30-31, 2003. This valve was unlocked and opened during the performance of the containment spray pump inservice pump test for train B, which is controlled by procedure STS EN-100B, Containment Spray Pump B Inservice Pump Test.

Procedure STS EN-100B requires that after this surveillance test has been completed, valve EN-V025 is to be restored to closed and locked, and subsequently verified to be closed and locked. The performance of restoration section of this procedure was not adequate to ensure that the final status of the valve was in the closed position.

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

In accordance with 10CFR50.73(b)(2)(ii)(J), the causes and circumstances related to the human performance related root cause of this event are discussed below.

This was the first on-shift watch following time off for both NSOs performing this procedure. This procedure was the first performance following initial qualification for one of the NSOs, and the first performance in a long period of time for the other NSO. The pre-job briefing for this procedure did not strongly reinforce the identification of critical steps, the error likely precursors, and the human performance defenses. Prior to completion of the restoration section of the procedure, one of the NSOs left the area to perform another evolution, and later returned to complete the restoration section. This was a distraction and a perceived time pressure evolution for the NSO.

The failure to close and lock valve EN-V025, and the adequacy of the subsequent verification of valve position is being addressed in PIR 2004-0094.

Basis for Reportability:

The containment spray system is required to be operable by Technical Specification 3.6.6, Containment Spray and Containment Cooling Systems. This condition existed prior to discovery for a period greater than 72 hours, the allowed Completion Time associated with Required Action A.1 of Technical Specification 3.6.6. As such this situation represents a condition prohibited by Technical Specifications, and is reportable per 10 CFR 50.73(a)(2)(i)(B).

Root Cause:

The root cause for valve EN-V025 being in the incorrect position is lack of information validation or verification. The two NSOs did not adequately validate information, and did not adequately verify the information (i.e., valve position).

Safety Significance:

Upon notification that valve EN-V025 was open, the control room immediately conducted a review of other equipment out of service and found no equipment inoperable in the opposite train (A Train), therefore a Loss of Safety Function did not exist. A core damage risk impact estimate resulted in an increase in core damage frequency of 1.3E-08/yr.

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

The NSO who discovered valve EN-V025 in the incorrect position of open, located and observed two related valves, EN-V024 and BN-V001, to be in the correct position of closed. Valve EN-V024 is the A Train isolation valve allowing diversion of the containment spray pump discharge from the containment spray nozzles to the RWST during pump testing. Valve BN-V001 is a non-safety related valve in series with valve EN-V024 or EN-V025 which also isolates the test line going to the RWST. Even though this closed non-safety related valve can not be credited for containment spray system operability, it would likely have been available to isolate flow to the RWST if a loss of coolant accident or main steam line break inside the containment had occurred.

Corrective Actions:

The Shift Manager of the operations crew on shift at the time of the test has conducted coaching and counseling sessions with the two involved NSOs. These sessions focused on the error prevention human performance tools including comparing/contrasting rising stem valves, as well as procedure use and adherence.

The site-wide distribution of human performance tools and lessons learned from this event will be provided to help prevent recurrence of this event (or similar events) in the future. In addition, procedures on the conduct of operations and conduct of pre-job and post-job briefs will be reviewed for potential changes.

Previous Events:

A review of Wolf Creek Nuclear Operating Corporation LERs submitted over the last 2 years revealed no similar events where failure to validate or verify information resulted in conditions prohibited by Technical Specifications.