

# WOLF CREEK

NUCLEAR OPERATING CORPORATION

Clay C. Warren  
Chief Operating Officer

July 24, 1997

WO 97-0075

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

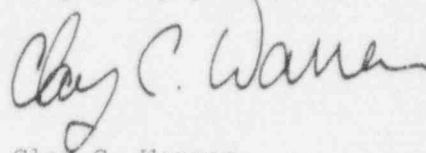
Subject: Docket No. 50-482: Licensee Event Report 97-001-02

Gentlemen:

The attached supplement to Licensee Event Report (LER) 97-001-00 provides information on the root cause and corrective action for a failure to comply with Technical Specification surveillance requirements. This LER is being reported pursuant to 10 CFR 50.73(a)(2)(i)(B).

If you should have any questions regarding this submittal, please contact me at (316) 364-8831 extension 4485, or Mr. Richard D. Flannigan at extension 4500.

Very truly yours,



Clay C. Warren

CCW/jad

Attachment

cc: W. D. Johnson (NRC), w/a  
W. E. Merschoff (NRC), w/a  
J. F. Ringwald (NRC), w/a  
J. C. Stone (NRC), w/a

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**LICENSEE EVENT REPORT (LER)**

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

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, 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) 05000482	PAGE (3) 1 OF 8
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TITLE (4)  
Failure To Comply With Surveillance Requirements to Test Certain Components at Shutdown

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
06	24	97	97	01	02	07	24	97	FACILITY NAME	DOCKET NUMBER

OPERATING	MODE 1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)								
		20 402(b)		20 405(c)		50 73(a)(2)(iv)		73 71(b)		
POWER	100%	20 405(a)(1)(i)		50 36(c)(1)		50 73(a)(2)(v)		73 71(c)		
		20 405(a)(1)(ii)		50 36(c)(2)		50 73(a)(2)(vi)		OTHER		
		20 405(a)(1)(iii)	X	50 73(a)(2)(i)		50 73(a)(2)(viii)(A)				
		20 405(a)(1)(iv)		50 73(a)(2)(ii)		50 73(a)(2)(viii)(B)				
		20 405(a)(1)(v)		50 73(a)(2)(iii)		50 73(a)(2)(x)				

LICENSEE CONTACT FOR THIS LER (12)

NAME Richard D. Flannigan Manager Nuclear Engineering, Safety, and Licensing	TELEPHONE NUMBER (Include Area Code) 316-364-4500
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS
		N/A							

SUPPLEMENTAL REPORT EXPECTED (14)				EXPECTED	MONTH	DAY	YEAR
YES	X	NO					

ABSTRACT:  
On January 8, 1997, during a Quality Evaluations Audit, "Technical Specifications and Surveillance Testing," an auditor questioned whether the surveillance requirements for Technical Specification 4.7.3.b were being appropriately met. Surveillance requirement 4.7.3.b states, "At least two component cooling water loops shall be demonstrated OPERABLE: At least once per 18 months during shutdown..." It was determined that portions of this Technical Specification surveillance required to be performed "at least once per 18 months during shutdown" were being performed in Mode 1. Operations personnel have performed a review of surveillances requirements that are required to be performed at shutdown and found other occurrences. An additional example was found on June 24, 1997, when personnel discovered specific snubbers had not been tested during shutdown in accordance with the surveillance requirements of USAR 16.7.2.1.1 (formerly Technical Specification 4.7.8). The root cause of this event is personnel errors made in scheduling of Technical Specifications Surveillances and the surveillance requirements contained therein. Corrective actions included review of the scheduling database for similar scheduling errors and revision of applicable procedures.

**LICENSEE EVENT REPORT (LER)**  
TEXT CONTINUATION

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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
Wolf Creek Generating Station	05000482	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 8
		97	001	02	

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

Plant Conditions Prior to the Event:

MODE = 1  
Reactor Coolant Pressure = 2234 psig  
Reactor Power = 100%

Basis for Reportability:

Wolf Creek Technical Specifications contain a number of surveillance requirements which are required to be performed every 18 months at shutdown (Attachment 1). It was discovered that during performance of some surveillances not all the surveillance requirements were performed during a shutdown mode. The surveillance requirements that were not performed at shutdown as part of the completion of the surveillance are shown in Attachment 2. This discrepancy has existed since initial plant startup resulting in missed surveillances.

10 CFR 50.73(a)(2)(i)(B) requires each licensee to report any operation or condition prohibited by the plant's technical specifications.

Description of Event:

On January 8, 1997, during a Quality Evaluations Audit, "Technical Specifications and Surveillance Testing," a WCNOA auditor questioned whether the surveillance requirements for Technical Specification 4.7.3.b were being appropriately met. Operations personnel determined that the surveillance requirements had been incorrectly scheduled and were not performed as required at shutdown during Refueling Outage VIII in 1996. As committed to in Revision 0 to this LER a further assessment was performed. It was discovered that portions of Technical Specifications surveillances required to be performed during shutdown were actually being performed since initial startup, in Mode 1. The documentation which implemented the performance of these surveillances was reviewed and determined to be current and therefore no operability concern exists.

The affected surveillances test multiple components with various actuation signals. Many of these same components and signals are required to be tested at shutdown and by another Technical Specification surveillance in Mode 1. During initial development of the Technical Specification surveillance tracking program the redundancy in Technical Specification requirements resulted in the understanding that these surveillances could be performed with the plant in Mode 1.

A subsequent example was found on June 24, 1997, when personnel discovered that specific snubbers had not been tested in accordance with the surveillance requirements of USAR 16.7.2.1.1.e (formerly Technical Specification 4.7.8). USAR 16.7.2.2.1.e states "During the first refueling shutdown and at least once per 18 months thereafter during shutdown, a representative sample of snubbers of each type shall be tested using the sample plans." Contrary to this, snubbers had been tested at operating modes other than shutdown. Procedure STS MT-027, "Snubber Functional Test," Revisions 0 through 6 (current revision)

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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
Wolf Creek Generating Station	05000482	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	3 OF 8
		97	001	02	

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allowed testing of snubbers in modes other than shutdown (Modes 1, 2, 3, or 4), whereas USAR 16.7.2.1.1.e requires that snubbers shall be tested at shutdown. STS MT-027, Revision 0, was issued June 30, 1984, prior to licensing of WCGS, when the applicability statement for Technical Specification 3.7.8 was misapplied and incorporated into the procedure. Subsequent revisions to the procedure evaluated changes to the procedure but did not reconfirm all of the data in the procedure. Consequently, the error carried through each revision of the procedure.

**Root Cause:**

The root cause of this event is personnel error on the part of the initial procedure writers and surveillance coordinators in that the requirements of Technical Specifications were not understood or clarified before procedures and schedules were initially written or subsequently when they were revised.

**Corrective Actions:**

Expectations regarding compliance with the Technical Specifications were discussed and reinforced with current Operations procedure writers and schedulers during an Operations Support Staff Meeting on February 25, 1997.

The Technical Specification surveillance requirements applicable to shutdown conditions will be manually scheduled/tracked for Refuel IX.

A tracking designator in the Surveillance Tracking Database to ensure they are scheduled for completion during shutdown periods and capable of being included on the Mode Change Checklist will be added prior to Refuel X.

On the Spot Change (OTSC) 97-0306 was issued July 9, 1997, to revise step 4.2 of STS MT-027, Revision 6, to state that functional testing of snubbers shall be performed during shutdown.

**Safety Significance:**

There is no safety significance to performing these surveillances at Mode 1 because not having the plant shutdown during the surveillance tests did not invalidate the results or adequacy of the test. Although the surveillance requirements were not properly scheduled to coincide with shutdown conditions, they were successfully completed on their indicated frequency which indicates continued operability. The documentation which implemented the performance of these surveillances was reviewed and determined to be current and confirmed that no operability concern exists.

Snubbers which were tested in modes other than shutdown were replaced during the testing process. Or were tested and returned to the system during a declared 72-hour LCO. Therefore, no degradation of the system occurred as a result of testing the snubbers during operating modes.

**LICENSEE EVENT REPORT (LER)**  
TEXT CONTINUATION

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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Wolf Creek Generating Station	05000482	97	001	02	4 OF 8

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

Other Previous Occurrences:

LER 96-017-00 discusses an inadequate surveillance requirement for testing components at the Auxiliary Shutdown Panel (ASP). This event is similar in that the requirements were not accurately determined during the initial development of the surveillance procedure and the oversight was not corrected during the procedure revision process. The corrective actions to this LER were still in progress and would not have prevented this occurrence.

LER 92-005-00 discussed failure to incorporate all the required values into a surveillance procedure. It was determined that Containment Isolation Valves, EJVI87 and EJVI89 [BP-ISV], "Containment Recirculation Sump to Post-Accident Sampling System Test Connection and Drain Valves," had not been included in the appropriate surveillance test procedure. The root cause of this event was inadequate attention to detail when preparing the test procedure prior to plant start-up. Corrective actions taken were specific to the procedure in question and would not have prevented this event.

**LICENSEE EVENT REPORT (LER)**  
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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
Wolf Creek Generating Station	05000482	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	5 OF 8
		97	001	02	

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

**Attachment One**

**During Shutdown Surveillance Requirements**

- |           |             |
|-----------|-------------|
| 4.4.5.1   | 4.7.3.c     |
| 4.5.2.e   | 4.7.4.b     |
| 4.5.2.h   | 4.7.4.c     |
| 4.5.2.i   | 4.8.1.1.2.g |
| 4.6.2.1.c | 4.8.2.1d    |
| 4.6.2.2.c | 4.8.2.1.e   |
| 4.6.3.2   | 4.8.2.1.f   |
| 4.7.3.b   |             |

**Operational Requirements Manual**

- |              |              |
|--------------|--------------|
| 16.1.2.2.1.b | 16.4.5.1.1.c |
| 16.4.5.1.1.b | 16.7.2.1.1.e |

**LICENSEE EVENT REPORT (LER)**  
TEXT CONTINUATION

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FACILITY NAME (1)		DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
Wolf Creek Generating Station		05000482	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
			97	001	02	6 OF 8

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## Attachment Two

### Performance of Surveillances

<u>Surv. Req.</u>	<u>Surv. Procedure</u>	<u>Modes Freq.</u>	<u>Comments</u>
4.4.5.1	STS PE-022	M 1-4 R	OK
4.5.2.e.1	STS IC-740A/B	M 1-4 CS	OK
4.5.2.E.2	STS KJ-001A/B	M 1-6 R	both missed RF 1, B missed RF4
4.5.2.h.1.a	STS EM-003A	M 1-3 C	OK Note 1
4.5.2.h.1.b	STS EM-003A	M 1-3 C	OK Note 1
4.5.2.h.2.a	STS EM-003B	M 1-3 C	OK Note 1
4.5.2.h.2.b	STS EM-003B	M 1-3 C	OK Note 1
4.5.2.i.1	STS EM-003C	M 1-3 C	OK Note 1
4.5.2.i.2	STS EM-003C	M 1-3 C	OK Note 1
4.6.2.1.c.1	STS IC-211A/B	M 1-5 E	OK
	STS IC 643A/B	M 1-4 Q	both missed in RF 1 and 8
	STS IC-644A/B	M 1-4 Q	OK
4.6.2.1.c.2	STS KJ-001A/B	M 1-6 R	both missed RF 1, B missed RF4
4.6.2.2.c	STS IC-211A/B	M 1-5 E	OK
	STS IC-643A/B	M 1-4 Q	both missed in RF 1 and 8
	STS IC 644A/B	M 1-4 Q	OK
4.6.3.2.a	STS KJ-001A/B	M 1-6 R	both missed RF 1, B missed RF4
4.6.3.2.b	STS KJ-001A/B	M 1-6 R	both missed RF 1, B missed RF4
4.6.3.2.c	STS GP-001	M 1-4 R	OK
	STS KJ-001A/B	M 1-6 R	both missed RF 1, B missed RF4
4.7.3.b.1	STS IC-615A/B	M 1-4 Q	B missed in RF7

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FACILITY NAME (1)		DOCKET NUMBER (2)		LER NUMBER (6)			PAGE (3)
Wolf Creek Generating Station		05000482		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
				97	001	02	7 OF 8

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

<u>Surv. Req.</u>	<u>Surv. Procedure</u>	<u>Modes Freq.</u>	<u>Comments</u>
	STS IC-926	M 1-4 R	missed in RF 5 and 7
	STS KJ-001A/B	M 1-6 R	both missed RF 1, B missed RF4
4.7.3.b.2	STS KJ-001A/B	M 1-6 R	both missed RF 1, B missed RF4
4.7.3.c	STS IC-916	M 1-4 R	missed in RF 1-6
4.7.4.b.1	STS IC-602A/B	M 1-4 CS	OK
	STS IC-603A/B	M 1-4 Q	both missed in RF1 and 8
	STS IC-608A/B	M 1-4 Q	both missed in RF1 and 8
	STS IC-609A/B	M 1-4 Q	both missed in RF1
	STS IC-610A/B	M 1-4 Q	A missed in RF1 and 8
	STS IC-616A/B	M 1-4 Q	both missed in RF6
	STS IC-927	M 1-4 R	missed in RF 3, 4, 7 and 8
	STS KJ-001A/3	M 1-6 R	both missed RF 1, B missed RF4
4.7.4.b.2	STS AL-005	M 1-3 R	OK
	STS KJ-001A/B	M 1-6 R	both missed RF 1, B missed RF4
4.7.4.c	STS IC-918	M 1-4 R	missed in RF 1-5
4.8.1.1.2.g.1-9	STS KJ-001A/B	M 1-6 R	both missed RF 1, B missed RF4
4.8.1.1.2.g.10	STS JE-002	M 1-6 R	OK
4.8.1.1.2.g.11	STS IC-930A/B	M 1-6 R	OK
4.8.2.1d	STS MT-021	M 1-6 R	missed in RF1
4.8.2.1.e	STS MT-022	M 1-6 5	OK
4.8.2.1.f	STS MT-022	M 1-6 5	OK
	STS MT-022 (C)	M 1-6 R	OK Note 2

Note 1 - SR 4.5.2.h / 4.5.2.i requires flow balance testing during shutdown following completion of modifications to the ECCS / RHR systems modifications. Partial STS EM-003A/B/C have been performed to demonstrate operability following modifications.

Note 2 - STS MT-022 satisfies SR 4.8.2.1.e and 4.8.2.1.f if any battery show signs of degradation or has reached 85% of the service life expected.



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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
Wolf Creek Generating Station	05000482	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	8 OF 8
		97	001	02	

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

**Operational Requirements Manual**

16.1.2.2.1.b	STS KJ-001A/B	M 1-6 R	both missed RF 1, B missed RF4
16.4.5.1.1.B	STS BB-205	M 1-4 CS	OK
16.4.5.1.1.c	STS BB-205	M 1-4 CS	OK
16.7.1.1.2.e	STS MT-027		Not performed during shutdown RF 1, RF 2, RF 5

**Legend**

R Refueling (18 month)  
 CS Cold Shutdown  
 C Contingent  
 E Every 62 days  
 Q Quarterly  
 5 5 years