

# WOLF CREEK

NUCLEAR OPERATING CORPORATION

Clay C. Warren  
Chief Operating Officer

November 27, 1996  
WO 96-0158

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

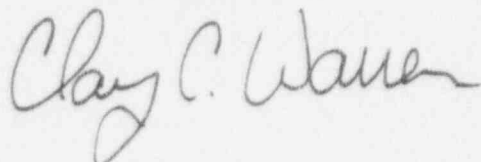
Subject: Docket No. 50-482: Licensee Event Report 96-017-00

Gentlemen:

The attached Licensee Event Report is being submitted pursuant to 10 CFR 50.73(a)(2)(i) concerning a failure to comply with the Technical Specifications.

If you should have any questions regarding this submittal, please contact me at (316) 364-8831 extension 4485, or Mr. Terry S. Morrill at extension 8707.

Very truly yours,



Clay C. Warren

CCW/jad

Attachment

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

9612030188 961127  
PDR ADDCK 05000482  
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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 5

TITLE (4)

Failure To Comply With Technical Specification Surveillance Requirement 4.3.3.5.2

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
10	29	96	96	017	00	11	17	96	FACILITY NAME	DOCKET NUMBER
OPERATING			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
MODE 1			20.402(b)		20.405(c)		50.73(a)(2)(iv)		73.71(b)	
POWER			20.405(a)(1)(i)		50.36(c)(1)		50.73(a)(2)(v)		73.71(c)	
100%			20.405(a)(1)(ii)		50.36(c)(2)		50.73(a)(2)(vii)		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

Terry S. Morrill  
Manager Regulatory Services

TELEPHONE NUMBER (Include Area Code)

316-364-8707

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

(If yes, completed EXPECTED SUBMISSION DATE)

X

NO

ABSTRACT:

On October 29, 1996, WCNO's Auxiliary Feedwater System Functional Assessment Team identified that Technical Specification Surveillance Requirement 4.3.3.5.2 was not being adequately accomplished through the applicable surveillance procedure. The surveillance procedure did not positively assure that contacts of 86X relays actuated by auxiliary shutdown panel (ASP) isolation switches actually changed state as required. This condition has existed since start-up of the plant in 1985. This is reportable to 10CFR50.73(a)(2)(i)(B). The root cause of this error is a lack of knowledge of the function of the isolation switch. Corrective actions included functionally testing the actuated components (86X relays) using the ASP isolation switches and revising the surveillance procedure.

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

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		96	017	00	

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:

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

Technical Specification Surveillance Requirement 4.3.3.5.2 states that the Auxiliary Shutdown Panel (ASP) controls shall be demonstrated OPERABLE at least once per 18 months by operating each actuated component from the ASP. Contrary to these requirements surveillance procedure, STS RP-004, "Auxiliary Shutdown Panel Control Switch Test," did not positively assure that isolation relays [RLY], actuated from three shutdown panel isolation switches, actually isolated the affected control circuits from the Control Room.

Failure to adequately perform Technical Specification Surveillance Requirement 4.3.3.5.2 is reportable per 10 CFR 50.73(a)(2)(i)(B).

Description of Event:

WCNOC currently has a team of employees performing a Functional Assessment of the Auxiliary Feedwater (AFW) [BA] System. The assessment scope includes review of the following: adequacy of current design assumptions, adequacy of incorporation of lessons learned from industry experience, agreement of the USAR with the design basis, effectiveness of testing and surveillance programs to verify safety functions, and focus of prioritization and scheduling of Engineering activities.

While the assessment team was verifying the effectiveness of testing three control room isolation switches [NA-HIS], RP HIS001, RP HIS002 and RP HIS003, located on the ASP, questions arose as to the adequacy of start-up and periodic testing.

The isolation switches have two positions, "NORM" or "ISO CNTRL ROOM". When the switch is moved to the "ISO CNTRL ROOM" position contacts of energized 86X relays [NA-RLY-86] change state. The 86X relay actuation provides the following functions to affected components: main control board (MCB) [NA] indication isolation, MCB manual operation block, automatic operation block, and control power provided by an alternate source (fuse).

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

The team sought to verify how and when the switches and associated 86X relays were tested and if they were subject to start-up and periodic testing.

The team reviewed start-up procedures to verify prior functional testing was performed and determined that startup testing did not adequately test all isolation functions of the affected components.

The team then reviewed Technical Specification 3.3.3.5, applicable to the ASP and determined that one of the associated surveillance requirements was not being correctly tested. WCNOG performs surveillance procedure, STS RP-004 to meet surveillance requirement 4.3.3.5.2 which requires that the ASP controls be demonstrated operable at least once per 18 months by operating each actuated component from the ASP. The team concluded that the 86X relays associated with isolation switches are "actuated" components and as such need to be tested to meet the requirements of surveillance requirement 4.3.3.5.2. Procedure STS RP-004 did not require verification that the contacts of the 86X relays associated with each of the three isolation switches changed state when the ASP isolation switches were placed in the "ISO CNTRL ROOM" position.

On October 29, 1996, the team identified that surveillance requirement 4.3.3.5.2 was not adequately accomplished through the performance STS RP-004. At 1427 CST, the Control Room entered Technical Specifications 3.3.3.5 for the ASP and 4.0.3 for a missed surveillance. Entry into Technical Specification 3.3.3.5 required the testing of the switches within seven days.

Surveillance procedure, STS RP-004 was revised to perform a one-time baseline test to verify all functions of the 86X relay were in accordance with the design, and to fulfill the surveillance requirement that the contacts of the actuated 86X relays changed state. The procedure was performed successfully on November 4, 1996, and Technical Specification 3.3.3.5 was exited at 0314.

Root Cause and Corrective Actions:Root Cause and Contributing Factors:

The root cause for this event was lack of knowledge of the function of the isolation switches since startup. From review of the revisions to STS RP-004 it is evident that the 86X relays were not understood to be "actuated" components and therefore were not considered applicable to the surveillance requirement.

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Additionally, a contributing factor is that "actuated" components for these isolation switches are relays and contacts, unlike valves and pumps for most controls at the ASP. Therefore, when the isolation switch was positioned to "ISO CNTRL ROOM" there was no obvious action that any component had changed state.

The root cause analysis for PIR 96-2788 indicated the potential to previously identify this problem. Each of the nine previous revisions to STS RP-004 did not recognize it as an inadequate surveillance. Additionally, two Industry Technical Information Program (ITIP) documents (3231 and 3312) were reviewed in 1996 relating to testing of controls at the ASP. ITIP 3231 initiated from an Operating Experience (OE) notice was generic in nature questioning whether or not testing was being accomplished and was closed in process due to the existence of STS RP-004. ITIP 3312 was initiated for Information Notice 96-15, "Unexpected Plant Performance During Performance of New Surveillance Tests." Operations responded to this ITIP and stated that the controls from the ASP were tested during Refueling Outage VIII as a commitment from Licensee Event Report (LER) 95-007, and that the surveillance referenced in the Information Notice is part of the Improved Technical Specifications which WCNOG is implementing in 1997. During the time of the ITIP reviews and corrective actions for LER 95-007, the 86X relays were not recognized to be actuated components that required testing.

Corrective Actions

Performance Improvement Request (PIR) 96-2788 was initiated to document the problem and address the root cause and corrective actions.

Surveillance procedure STS RP-004, Revision 10, was issued on November 1, 1996. Performance of STS RP-004, Revision 10, was completed satisfactorily on November 4, 1996, and constituted a one-time baseline test to verify all functions of the 86X relay were in accordance with the design, and to fulfill the surveillance requirement that the contact of the actuated 86X relays changed state.

Lesson Plan LO 14 100 01 on the ASP was reviewed and it was determined that the latest revision had been recently updated to accurately reflect the functions of the 86X relays. Although the training material went into greater detail about the functions of the relays, training personnel did not recognize that the surveillance procedure was deficient. No changes to the lesson plan are warranted. To increase knowledge on these components licensed operators will receive training on this lesson plan during the next regualification training cycle scheduled to be completed by May 30, 1997.

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PIR 96-2788 was placed in required reading for the Operations Support Group to encourage thorough procedure reviews and not only review of proposed changes.

PIR 96-2788 was forwarded to Nuclear Safety Engineering, the organization that is responsible for the ITIP program, as an example of a missed opportunity, where a broader review scope of an ITIP could possibly have found the problem.

**Safety Significance:**

The operability of the ASP ensures that sufficient capability is available to permit shutdown and maintenance of hot shutdown of the facility from locations outside of the control room and that a fire will not preclude achieving safe shutdown. The ASP transfer switches, power circuits, and control circuits are independent of areas where a fire could damage systems normally used to shutdown the reactor.

Although WCNOG had not adequately tested all of the actuated components from the ASP, the safety significance is very low because the 86X relays were verified to be operable. This was verified when surveillance procedure, STS RP-004, Revision 10, was successfully completed on November 4, 1996. The procedure performed a one-time baseline test to verify all functions of the 86X relays were in accordance with the design.

**Other Previous Occurrences:**

LER 95-007-00 reported that on December 29, 1995, at 1416 CST, the Essential Service Water (ESW) Supply Fan "B" [BI-FAN] failed to start when personnel placed the Normal, ISO/RUN selector switch in the ISO/RUN position. Investigation into the failure determined that an excessive length of control wiring (approximately 14,000 ft) caused a voltage drop which prevented the ESW Supply Fan "B" from starting in the ISO/RUN Mode. The failure of the supply fan to start rendered the "B" Train of ESW inoperable. The function of the ISO/RUN switch position is to separate the potentially damaged control circuit in the Control Room during and following a fire in the Control Room from the equipment and to ensure the availability of the equipment necessary to maintain the reactor in a safe shutdown condition. Corrective action to this LER included generating PIR 96-0015 and subsequent development and performance of STN RP-001, "Remote Shutdown NORM/ISO Switch Test." The corrective actions to this LER did not prevent this occurrence because plant personnel did not recognize the 86X relays to be actuated components.