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NLS2004072
May 27, 2004

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555-0001

Gentlemen:

Subject: Licensee Event Report No. 2004-002-00
Cooper Nuclear Station, NRC Docket 50-298, DPR-46

The purpose of this correspondence is to forward a Licensee Event Report.

Sincerely,

Stewart B. Minahan
General Manager Plant Operations

/jrs
Enclosure

cc: Regional Administrator w/enclosure
USNRC - Region IV

Senior Project Manager w/enclosure
USNRC - NRR Project Directorate IV-1

Senior Resident Inspector w/enclosure
USNRC

NPG Distribution w/enclosure

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LICENSEE EVENT REPORT (LER)

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

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1. FACILITY NAME Cooper Nuclear Station	2. DOCKET NUMBER 05000298	3. PAGE 1 OF 4
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4. TITLE
Failure to Follow Procedure Results in Both Diesel Generators being Inoperable

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
03	28	2004	2004	- 002 -	00	05	27	2004		05000
									FACILITY NAME	DOCKET NUMBER
										05000

9. OPERATING MODE	1	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CAR §: (Check all that apply)								
10. POWER LEVEL	100	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)	X 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 Paul V. Fleming, Licensing Manager	TELEPHONE NUMBER (Include Area Code) (402) 825-2774
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13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANU-FACTURED	REPORTABLE TO EPIC	CAUSE	SYSTEM	COMPONENT	MANU-FACTURED	REPORTABLE TO EPIC

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 March 23, 2004 diesel generator Division 1 was declared inoperable as a result of day tank float valve strainer fouling. As an interim compensatory measure to support Division 2 operability the diesel fuel oil storage tank cross-tie line valves were opened. On March 28, 2004, at 1303 CST while performing a routine surveillance to check availability of fuel oil for the diesel generators it was discovered that the storage tank levels were not equalized. During the subsequent investigation it was discovered that DGDO-V-23 had not been correctly verified to be in the open position and was, in fact, in the closed position. This resulted in both divisions of diesel generators being declared inoperable.

The condition is reportable in accordance with 10 CFR 50.73(a)(2)(v)(D) as, "Any event or condition that could have prevented the fulfillment of the safety function of structures or systems that are needed to mitigate the consequences of an accident".

The cause of the condition was a failure to follow procedural methods in checking valve position. Contributing causes included an inconsistent labeling of valve position and a lack of independent verification of valve position when the valve position was checked. The closed valve was opened and diesel generator Division 2 was declared operable. Long-term corrective action is to correct the condition of the transfer valves to ensure that an obvious visible indication of valve position is available that allows ease of interpretation.

LICENSEE EVENT REPORT (LER)

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
Cooper Nuclear Station	05000298	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 4
		2004	-- 002	-- 00	

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

PLANT STATUS

Cooper Nuclear Station was in Mode 1 (Run) at 100 percent power when the condition that could have prevented the fulfilment of the safety function of systems that are needed to mitigate the consequences of accidents occurred.

BACKGROUND

The standby alternating current power system (EIS:EK) consists of two independent on-site diesel generators (DG) (EIS:DG) adequate for maintaining the safe shutdown of the reactor following abnormal operational transients and postulated accidents in the event of failure of all off-site power. Each DG unit has a fuel day tank (EIS:DC). Both day tanks are supplied from either of two main fuel storage tanks (EIS:DC). Both main fuel storage tanks combined are capable of providing sufficient fuel for seven days of operation of one DG unit under postulated accident conditions. Each fuel day tank will provide enough fuel to allow a minimum of five hours of full load operation of the DG unit.

Each of the two diesel fuel oil storage tanks are provided with its own transfer pump and piping connections to its respective fuel oil day tank. Cross-ties are provided such that either DG can be supplied from both fuel oil storage tanks.

EVENT DESCRIPTION

On March 23, 2004, during performance of the DG Division 1 operability test, the "A" fuel oil transfer pump did not generate the required and/or expected flow rate. Based on similar occurrences in February and November 2003, it was expected that the day tank float valve strainer was fouled causing a flow restriction. DG Division 1 was declared inoperable. DG Division 2 had been previously run on March 16, 2004 and the fuel oil strainer inspected on March 17, 2004. No debris was observed in the day tank float valve strainer. Therefore, the condition observed on DG Division 1 had not manifested itself on DG Division 2. Trending of pump pressures and flow rates for DG Division 2 also supported this conclusion.

As a result of the fuel oil transfer problems involving the "A" fuel oil storage transfer system a number of interim compensatory actions were implemented to preclude possible transfer of particulate from the "A" fuel oil storage and transfer system to the "B" fuel oil storage and transfer system. These compensatory measures included the following:

1. Maintenance personnel were on continuous coverage to ensure personnel were available to service the day tank float valve strainer in the event emergency diesel generator operation is required and a strainer becomes fouled.
2. Work packages, clearance orders, replacement parts, and tools were staged to facilitate the timely cleaning or replacement of a fouled day tank float valve strainer.
3. The day tank float valve strainer will be inspected, cleaned and, if necessary, replaced following each monthly surveillance diesel run.

LICENSEE EVENT REPORT (LER)

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
Cooper Nuclear Station	05000298	YEAR	SEQUENTIAL NUMBER	REVISION	3 OF 4
		2004	-- 002	-- 00	

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

4. The use of the "A" fuel oil storage tank fill connection was prohibited during tank fill operations.
5. DGDO-V-22 and 23 diesel fuel oil storage tank A and B transfer valves, respectively, located on the tank cross-tie line, were caution tagged in the open position. This action would ensure that the tanks would remain at identical levels minimizing the velocity of fuel being transferred through the cross-tie line thus minimizing debris transfer from the "A" to the "B" fuel oil storage tanks.
6. DGDO-V-19 DGDO tank inlet crosstie valve was maintained closed to completely eliminate the transfer of corrosion product particulate debris from the "A" to the "B" fuel oil storage and transfer system.

On March 28, 2004, at 1303 CST while performing a routine surveillance to check availability of fuel oil for the diesel generators it was discovered that the storage tank levels were not equalized. During the subsequent investigation it was discovered that DGDO-V-23 had not been correctly verified to be in the open position and was, in fact, in the closed position. This was in conflict with the operability evaluation and DG Division 2 was declared inoperable.

BASIS FOR REPORT

This event is reportable in accordance with 10 CFR 50.73(a)(2)(v)(D) as "Any event or condition that could have prevented the fulfillment of the safety function of structures or systems that are needed to mitigate the consequences of an accident".

CAUSE

The cause of this event was a failure to follow procedural methods in checking valve position. Instead, valve position was determined using an isometric drawing. Contributing cause included an inconsistent labeling of valve position and lack of independent verification of valve position when the valve position was checked. The lack of independent verification occurred when the independent verifier worked together with the operator in determining valve position instead of independently. The independent verifier also had to assist in the turning of the valve because it was too hard for one individual to turn.

SAFETY SIGNIFICANCE

An evaluation of this event concluded that it was not risk significant. If DGDO-V-23 was found out of position and opened at anytime within the typical 24-hour Probabilistic Safety Assessment (PSA) mission time, any corrosion product transfer would have been less severe than what existed on the DG Division 1 transfer side. Past surveillance data indicates the ability to obtain greater than 24-hours of full load operation before experiencing a strainer fouling event (even if significant debris transfer were to occur between "A" and "B" DG fuel oil storage tanks). DG Division 2 had greater than 3-days (capacity for continuous full load operation) of fuel oil available in diesel fuel oil storage tank B, if DGDO-V-23 was never found out of position. Additionally, compensatory measures 1 and 2, described above, provided additional assurance that the DG would have been available for full load operation even if a strainer fouling event had occurred. This is well in excess of the typical maximum PSA mission time.

This event is considered a Safety System Functional Failure as defined in NEI 99-02, Revision 2, Regulatory Assessment Performance Indicator Guideline.

LICENSEE EVENT REPORT (LER)

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
Cooper Nuclear Station	05000	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	4 OF 4
		2004	-- 002	-- 00	

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

CORRECTIVE ACTIONS

Immediate actions:

DGDO-V-23 was opened and DG Division 2 was declared operable. . . .

The levels in both fuel oil storage tanks were verified to be equalized.

A night order was issued requiring a first and second independent verification of all safety related component manipulations.

A tailgate was held with operators to explain procedural requirements for verification, validation and concurrent versus independent verification.

Personnel performance issues with the involved individuals were handled in accordance with site procedures.

Long Term actions:

Correct the condition of the cross-tie valves to ensure that an obvious visible indication of valve position is available that allows ease of interpretation. Complete by Feb. 28, 2005.

PREVIOUS EVENTS

No previous reportable events resulting from mis-positioned components with a similar root cause, failure or sequence of events within the last three years were identified.

