



Nebraska Public Power District

Always there when you need us

NLS2007071
November 8, 2007

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

Subject: Licensee Event Report No. 2007-006-00
Cooper Nuclear Station, Docket 50-298, DPR-46

Dear Sir or Madam:

The purpose of this correspondence is to forward Licensee Event Report 2007-006-00.

Sincerely,

Michael J. Colomb
General Manager of Plant Operations

/em

Attachment

cc: Regional Administrator w/attachment
USNRC - Region IV

NPG Distribution w/attachment

Cooper Project Manager w/attachment
USNRC - NRR Project Directorate IV-1

INPO Records Center w/attachment

Senior Resident Inspector w/attachment
USNRC - CNS

SORC Administrator w/attachment

SRAB Administrator w/attachment

CNS Records w/attachment

TE22
NRR

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: 80 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs NEOF-10202 (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means to impose an 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 Cooper Nuclear Station	2. DOCKET NUMBER 05000298	3. PAGE 1 of 4
---	-------------------------------------	--------------------------

4. TITLE
Procedural Guidance Leads to Rendering Second Diesel Generator Inoperable

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
09	11	2007	2007	- 006	- 00	11	08	2007		05000
									FACILITY NAME	DOCKET NUMBER
										05000

9. OPERATING MODE 1	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check all that apply)									
10. POWER LEVEL 100	<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> 50.73(a)(2)(vii)						
	<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)						
	<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)						
	<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)						
	<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)						
	<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 73.71(a)(4)						
	<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)						
<input type="checkbox"/> 20.2203(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> OTHER							
<input type="checkbox"/> 20.2203(a)(2)(vi)	<input type="checkbox"/> 50.73(a)(2)(i)(B)	<input checked="" type="checkbox"/> 50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A							

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME David W. Van Der Kamp, Licensing Manager	TELEPHONE NUMBER (Include Area Code) (402) 825-2904
---	--

13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

14. SUPPLEMENTAL REPORT EXPECTED <input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE). <input checked="" type="checkbox"/> NO	15. EXPECTED SUBMISSION DATE MONTH: DAY: YEAR:
---	--

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

At 14:49 Central Daylight Time on September 11, 2007, Diesel Generator (DG) 1 was declared inoperable when the DG 1 fuel oil day tank inlet high level float shutoff valve and solenoid shutoff valve leaked by causing the potential for DG 1 day tank to overflow. DG 2 was already inoperable and unavailable due to scheduled maintenance. Acceptance criteria of a surveillance procedure (SP) were applied to DG 1 that required DG 1 to be declared inoperable. At 15:09, the DG 1 maintenance lockout switch was positioned to OFF for replacement of the solenoid shutoff valve which rendered DG 1 inoperable and unavailable. Two DGs inoperable and unavailable constitutes a loss of safety function for on-site emergency power.

This event was caused by the SP containing a requirement to declare DG 1 inoperable following the failure to meet acceptance criteria when other options for maintaining operability of the system were available. Immediate actions consisted of separating DG fuel oil transfer subsystems by closing the fuel oil day tank inlet cross-tie valve and revising the SP to provide alternative actions that maintain operability following day tank solenoid shutoff valve failure.

This condition was not risk significant.

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

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
Cooper Nuclear Station	05000298	YEAR	SEQUENTIAL NUMBER	REVISION	2 of 4
		2007	-- 006	-- 00	

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

PLANT STATUS

Cooper Nuclear Station (CNS) was in Mode 1 at 100 percent, steady state power at the time of this event.

BACKGROUND

The standby alternating current (AC) 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 off-site power. Each DG unit has a fuel oil day tank [EIS:DC]. Each day tank can be supplied from the two main fuel storage tanks which are cross-tied [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 oil day tank provides enough fuel to allow a minimum of five hours of full load operation of the DG unit.

The two diesel fuel oil storage tank suction are cross-tied. Each of the two diesel fuel oil storage tanks is provided with its own transfer pump [EIS:P] and piping connections to its respective fuel oil day tank. The fill system discharges are also cross-tied prior to the day tanks, and a float admission valve [EIS:SHV] on the inlet will prevent overfilling the day tank in the division opposite the fill demand signal. A second valve, which is solenoid operated [EIS:LSV], will close if the level continues to rise. This solenoid is controlled by a high level control switch [EIS:LS].

EVENT DESCRIPTION

On September 11, 2007, the plant was in Mode 1, in day two of a seven-day shutdown action statement of Limiting Condition for Operation (LCO) 3.8.1. DG 2 was inoperable and unavailable due to planned maintenance. At 12:46, while operators were refilling the DG 2 fuel oil day tank for system restoration, the control room received a high-high level alarm on the DG 1 fuel oil day tank. There were indications from the field that the DG 1 fuel oil day tank inlet high level float shutoff valve and the solenoid shutoff valve were leaking by. Acceptance criteria of a surveillance procedure (SP) were applied which checks closure of the DG 1 fuel oil day tank solenoid shutoff valve. Based on the acceptance criteria not being met, as indicated by the rising day tank level, DG 1 was determined unable to meet Technical Specification (TS) Surveillance Requirement 3.8.1.6. DG 1 was declared inoperable, per the SP, at 14:49. LCO 3.8.1, Condition E, was entered for two DGs inoperable with Required Action E.1 to restore one DG to operable status within two hours.

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

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
Cooper Nuclear Station	05000298	YEAR	SEQUENTIAL NUMBER	REVISION	3 of 4
		2007	-- 006	-- 00	

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

At 15:09, the DG 1 maintenance lockout switch was tagged in the OFF position for replacement of the DG 1 fuel oil day tank solenoid shutoff valve. This rendered the second DG, DG 1, inoperable and unavailable. At 16:45, maintenance work was complete and safety tags cleared, making DG 1 available. However, post work testing had determined the replacement work was ineffective. At 16:49 hours, CNS entered LCO 3.8.1, Condition F (Be in Mode 3 in 12 hours and Mode 4 in 36 hours) upon reaching the two hour completion time to restore one DG to operable status.

Subsequently, at 19:19, the fuel oil day tank inlet cross-tie valve was caution tagged in the closed position to separate the two DG fuel oil transfer subsystems. By splitting the subsystems, the day tank overfill protection of each day tank was provided by the individual day tank level switches which operate and secure the respective fuel oil transfer pump. DG 1 was declared operable at 21:29 and LCO 3.8.1 Conditions E and F were exited.

BASIS FOR REPORT

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

SAFETY SIGNIFICANCE

This event is a safety system functional failure for on-site emergency AC power. The concurrent unavailability of both DGs occurred for 96 minutes. Due to the short duration, this condition is not risk significant. The impact on core damage probability was determined to be below levels established for risk significance; that is, less than 1E-06.

CAUSE

The SP applied to the DG 1 fuel oil day tank solenoid shutoff valve was inadequate in that it contained a requirement to declare DG 1 inoperable following failure to meet acceptance criteria when other options for maintaining operability of the DG system were available. Specifically, other system operating procedures allowed splitting out the DG fuel oil subsystems by closing the fuel oil day tank inlet cross-tie valve and ensuring the fuel oil pump switches are in AUTO, thus preventing one DG fill evolution from potentially impacting the other DG.

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

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
Cooper Nuclear Station	05000298	YEAR	SEQUENTIAL NUMBER	REVISION	4 of 4
		2007	-- 006	-- 00	

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

CORRECTIVE ACTION

The SP was revised to provide an alternate action if the day tank inlet high level float shutoff valve and the solenoid shutoff valve fail to close. The new revision was implemented on September 12, 2007, and provides instruction to maintain the fuel oil day tank inlet cross-tie valve in the closed position, thereby making the close function of the solenoid shutoff valve unnecessary. Additional DG fuel oil system surveillances were similarly revised and made effective on September 20, 2007.

PREVIOUS EVENTS

The following previous event was related to a DG diesel fuel oil transfer system failure, but had a different root cause:

LER 2005-003 reported that on June 21, 2005, CNS determined the DG diesel oil transfer pump in-service flow test on November 5, 2004, resulted in a condition prohibited by TS. The SP in effect at that time allowed quarterly exercising of the two normally closed manual cross connects between the fuel storage tanks by placing the fuel transfer pump switches to the OFF position and then validating cross-connect valve operation. On December 30, 2004 operators recognized that steps to place the transfer pump switches to OFF required declaring both DGs inoperable. The procedure was revised and the surveillance was subsequently performed. Three prior surveillances performed in 2004 were evaluated and there was no loss of safety function. However, for the surveillance performed in November 2004, the TS "immediate" action limit for Mode 4 was exceeded which resulted in a condition prohibited by TS. The root cause was that the SP was inadequate in that it did not provide a caution that performing procedure steps would render both DGs inoperable.

ATTACHMENT 3 LIST OF REGULATORY COMMITMENTS

ATTACHMENT 3 LIST OF REGULATORY COMMITMENTS©

Correspondence Number: NLS2007071

The following table identifies those actions committed to by Nebraska Public Power District (NPPD) in this document. Any other actions discussed in the submittal represent intended or planned actions by NPPD. They are described for information only and are not regulatory commitments. Please notify the Licensing Manager at Cooper Nuclear Station of any questions regarding this document or any associated regulatory commitments.

COMMITMENT	COMMITMENT NUMBER	COMMITTED DATE OR OUTAGE
None		