

BULKY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8708180046 DOC. DATE: 87/08/12 NOTARIZED: NO DOCKET #
 FACIL: 50-400 Shearon Harris Nuclear Power Plant, Unit 1, Carolina 05000400
 AUTH. NAME AUTHOR AFFILIATION
 HUDSON, O. N. Carolina Power & Light Co.
 WATSON, R. A. Carolina Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 87-044-00: on 870713, Tech Spec surveillance for axial flux difference missed due to personnel error. Operator counseled. Repairs in progress to repair automatic axial flux difference monitor. W/870812 ltr.

DISTRIBUTION CODE: IE22D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 3
 TITLE: 50.73 Licensee Event Report (LER), Incident Rpt, etc.

NOTES: Application for permit renewal filed. 05000400

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	NRR/PMAS/ILRB	1 1	<u>REG FILE</u> 02	1 1
	RES DEPY GI	1 1	RES TELFORD, J	1 1
	RES/DE/EIB	1 1	RGN2 FILE 01	1 1
EXTERNAL:	EG&G GROH, M	5 5	H ST LOBBY WARD	1 1
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LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Shearon Harris Nuclear Power Plant, Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 4 0 0	PAGE (3) 1 OF 2
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TITLE (4)
Technical Specification Surveillance for Axial Flux Difference
Was Missed Due to Personnel Error

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES	
0	7	13	8	7	-	0	4	4	0	0
0	7	13	8	7	-	0	8	12	0	5

OPERATING MODE (9) 1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)				
POWER LEVEL (10) 199	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405(c)	<input type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
	<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 50.36(c)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)	
	<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(vi)		
	<input type="checkbox"/> 20.405(a)(1)(iii)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(vii)(A)		
	<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(vii)(B)		
<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(x)			

LICENSEE CONTACT FOR THIS LER (12)		TELEPHONE NUMBER	
NAME O. N. Hudson Senior Engineer - Regulatory Compliance	AREA CODE 9 1 9	3 6	2 1 - 2 3 6 3

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	CAUSE	SYSTEM

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

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

On July 13, 1987, the Shearon Harris Nuclear Power Plant was operating at full power. Axial flux difference (AFD) monitoring and logging was ongoing in accordance with Technical Specifications. This logging was necessary because the automatic AFD computer alarm was not operable. At 1230, the AFD reading was missed because the operator was distracted by a power escalation after a 35 MW turbine runback. This error was discovered during the next shift's review of the logged data.

The cause of the event was personnel error. Actions taken to prevent recurrence were (1) the operator was counseled and (2) repairs are in progress to repair the automatic AFD monitor.

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FACILITY NAME (1) Shearon Harris Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 4 0 0	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		8 7	- 0 4 4	- 0 0	0 2	OF 0 2

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

Description of Event

On July 13, 1987, the Shearon Harris Nuclear Power Plant was operating at full power. The automatic axial flux difference (AFD) monitor (EIIS:ID) was not in service. At approximately 1100, a turbine runback of approximately 35 MW occurred. Around 1200, a power increase back to full power using dilution was commenced. Technical Specification 4.2.1.1.b requires monitoring and logging the indicated axial flux difference (AFD) for each operable excore channel (EIIS:IG) at least once per 30 minutes when the AFD monitor alarm is inoperable. This monitoring and logging had been ongoing, but the 1230 reading was missed by the reactor operator. The plant was operating at approximately 99% power at this time. The 1300 reading was taken. The missed reading was discovered during the back shift's review of procedures.

Cause

The cause of the event was personnel error, an action contrary to an approved procedure. Procedure OST-1070, "AFD Monitoring and Logging," was in progress. The operator was distracted by the power escalation and missed taking the 1230 reading.

Analysis

This event is being reported in accordance with 10CFR50.73(a)(2)(i)(B) due to a missed Technical Specification surveillance.

There are no safety consequences as a result of this event. The logged AFD before and after the missed surveillance were both -3.5. This value is well within the target band of -1.6 to -11.6. There was very little rod motion through the event and therefore no reason to assume that AFD was not maintained within band during the 1 hour interval.

There have been no previous LERs that deal with missing this event related surveillance. Other event related surveillances have been missed in 1987 due to personnel errors; refer to LER Nos. 87-015, 87-022, 87-036, and 87-040.

Corrective Actions

1. The operator was counseled to prevent recurrence.
2. Repairs are in progress for the automatic AFD monitor.

DUKE POWER COMPANY

P.O. BOX 33189
CHARLOTTE, N.C. 28242

HAL B. TUGKER
VICE PRESIDENT
NUCLEAR PRODUCTION

TELEPHONE
(704) 373-4531

August 11, 1987

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

Subject: Catawba Nuclear Station, Units 1 and 2
Docket Nos. 50-413 and 50-414
McGuire Nuclear Station, Units 1 and 2
Docket Nos. 50-369 and 50-370
Technical Specification Amendment
Ice Condenser Lower Inlet Door Surveillance

Dear Sir:

By letters dated July 12, 1985, August 7, 1985, November 8, 1985, April 14, 1986, September 18, 1986 and March 16, 1987 Duke Power proposed and provided justification for an increase to the required surveillance interval for the ice condenser lower inlet doors.

During telephone conferences with members of the NRC Staff several questions were posed.

The NRC has requested a response to the following:

Q.1.:

In the July 12, 1985 and April 14, 1986 letter to the NRC, Duke Power stated, "The doors are expected to rupture during an accident if they fail to open...". Address the possibility/probability and consequences of sump blockage due to fragments of ruptured doors and insulation.

Response:

This statement assumed that an ice condenser door was incapable of opening. Engineering judgement led to the conclusion that the door would rupture before the crane wall would.

Westinghouse conducted lower inlet door acceptance tests at 140% Design Basis Accident forces, which generated no door missiles or fragments. These tests are documented in WCAP-8110 Supplement 1 dated April 30, 1973.

Q.2.:

Address long term performance of the door hinges and related hardware given the exposure to the containment and/or ice condenser atmosphere given that the surveillance interval will be lengthened.

*Appl
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Response:

The atmosphere in the ice bed environment is at 10°F - 20°F and the absolute humidity is very low. Therefore, corrosion of uncoated carbon steel is negligible.

To ensure that corrosion is minimized while the components of the ice condenser are in operation in the Containment, components are either galvanized, painted, or placed in a protective container. Galvanizing is in accordance with ASTM, A123, or A386.

Materials such as stainless steels with low corrosion rates have been used without protective coatings.

Corrosion has been considered in the detailed design of the ice condenser components, and it has been determined that the performance characteristics of the ice condenser materials of construction are not impaired by long term exposure to the ice condenser environment.

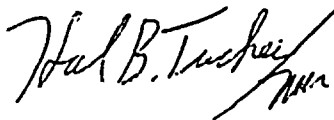
Since metal corrosion rates are directly proportional to temperature and humidity, corrosion of ice condenser components at operating temperatures has been almost non-existent.

Based on Duke Power experience, there has not been a problematical, out of compliance condition with the lower inlet door opening tests. Our experience includes four ice condenser units, the oldest of which has been in service 10 years since initial ice load.

Based on the previously provided information and the response to the questions presented here, Duke Power believes that an extension to the lower inlet door surveillance interval is justified.

If you need further clarification or have any other questions, please advise.

Very truly yours,



Hal B. Tucker

RWO/101/sbn

U. S. Nuclear Regulatory Commission

August 11, 1987

Page Three

xc: Dr. J. Nelson Grace, Regional Administrator
U. S. Nuclear Regulatory Commission
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McGuire Nuclear Station



Carolina Power & Light Company

HARRIS NUCLEAR PROJECT
P.O. Box 165
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AUG 12 1987

File Number: SHF/10-13510C
Letter Number: HO-870475 (O)

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

SHEARON HARRIS NUCLEAR POWER PLANT UNIT 1
DOCKET NO. 50-400
LICENSE NO. NPF-63
LICENSEE EVENT REPORT 87-044

Gentlemen:

In accordance with Title 10 to the Code of Federal Regulations, the enclosed Licensee Event Report is submitted. This report fulfills the requirement for a written report within thirty (30) days of a reportable occurrence and is in accordance with the format set forth in NUREG-1022, September, 1983.

Very truly yours,

R. A. Watson
Vice President
Harris Nuclear Project

RAW:lkd

Enclosure

cc: Dr. J. Nelson Grace (NRC - RII)
Mr. B. Buckley (NRR)
Mr. G. Maxwell (NRC - E-VE)

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