

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8802250399 DOC. DATE: 88/02/19 NOTARIZED: NO DOCKET #
 FACIL: 50-261 H. B. Robinson Plant, Unit 2, Carolina Power & Light C 05000261
 AUTH. NAME AUTHOR AFFILIATION
 CROOK, D. Carolina Power & Light Co.
 MORGAN, R. E. Carolina Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 88-002-00: on 880122, nonconservative trip setting existed
 overtemperature delta temperature setpoint in Tech Specs
 2.3.1.2. d as result of error. Caused by fuel vendors use of
 delay time data used. Results of analysis. W/880219 ltr.

DISTRIBUTION CODE: IE22D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 5
 TITLE: 50.73 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:

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AEOD/DOA	1 1	AEOD/DSP/NAS	1 1
AEOD/DSP/ROAB	2 2	AEOD/DSP/TPAB	1 1
ARM/DCTS/DAB	1 1	DEDRO	1 1
NRR/DEST/ADS7E4	1 0	NRR/DEST/CEB8H7	1 1
NRR/DEST/ESB 8D	1 1	NRR/DEST/ICSB7A	1 1
NRR/DEST/MEB9H3	1 1	NRR/DEST/MTB 9H	1 1
NRR/DEST/PSB8D1	1 1	NRR/DEST/RSB 8E	1 1
NRR/DEST/SGB 8D	1 1	NRR/DLPQ/HFB10D	1 1
NRR/DLPQ/QAB10A	1 1	NRR/DOEA/EAB11E	1 1
NRR/DREP/RAB10A	1 1	NRR/DREP/RPB10A	2 2
NRR/DRIS/SIB9A1	1 1	NRR/PMAS/ILRB12	1 1
REG FILE 02	1 1	RES TELFORD, J	1 1
RES/DE/EIB	1 1	RES/DRPS DIR	1 1
RGN2 FILE 01	1 1		
EXTERNAL: EG&G GROH, M	5 5	FORD BLDG HOY, A	1 1
H ST LOBBY WARD	1 1	LPDR	1 1
NRC PDR	1 1	NSIC HARRIS, J	1 1
NSIC MAYS, G	1 1		

NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2										DOCKET NUMBER (2) 0 5 0 0 0 2 6 1				PAGE (3) 1 OF 04											
TITLE (4) POTENTIAL NONCONSERVATIVE REACTOR PROTECTION SETPOINT DUE TO INCORRECT ANALYSIS																									
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				DOCKET NUMBER(S)												
0	1	2	2	8	8	8	8	0	0	2	0	0	0	2	1	9	8	8	0	5	0	0	0		
OPERATING MODE (9) N		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)																							
POWER LEVEL (10) 1 0 0		20.402(b)				20.405(c)				50.73(a)(2)(iv)				73.71(b)											
		20.405(a)(1)(i)				50.38(c)(1)				50.73(a)(2)(v)				73.71(c)											
		20.405(a)(1)(ii)				50.38(c)(2)				50.73(a)(2)(vii)				X OTHER (Specify in Abstract below and in Text, NRC Form 366A) INFORMATION ONLY											
		20.405(a)(1)(iii)				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 David Crook, Specialist - Regulatory Compliance										TELEPHONE NUMBER AREA CODE 8 0 3 3 8 3 - 1 1 7 9															
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																									
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS																
8802250399 880219 PDR ADOCK 05000261 S PDR																									
SUPPLEMENTAL REPORT EXPECTED (14)										EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR											
YES (If yes, complete EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO <input type="checkbox"/>																									

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

This LER is submitted to provide information of potential interest to the industry. On January 22, 1988, it was identified that a potentially nonconservative trip setting existed in the Overtemperature Delta Temperature (OTAT) setpoint as noted in Technical Specification 2.3.1.2.d as a result of an error in the instrument response time assumed in certain accident analyses. The value used was 2.3 seconds versus 6.0 seconds which should have been used. The trip point response delay time is used in the fuel vendors accident analyses for the following events: 1) Loss of External Load; 2) Uncontrolled Rod Withdrawal; and 3) Rod Drop with Active Turbine Runback.

The cause of this condition was attributed to the current fuel vendors use of the delay time data used in the original analysis to develop the required accident analysis codes for the core.

An interim setpoint was developed and implemented using very conservative values for use in the protection system until completion of a final analyses, which was in progress at that time.

The final analysis was received by CP&L on February 18, 1988. The results of the analyses concluded that applicable acceptance criteria are met with the current Technical specification limit on FAH of 1.65 and the current Technical Specification Overtemperature ΔT trip function.

This is an Informational Licensee Event Report and is being submitted as a followup to the one-hour notification made to the NRC via the ENS on January 22, 1988.

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H. B. ROBINSON S. E. PLANT, UNIT 2	0 5 0 0 0 2 6 1	8 8	— 0 0 2	— 0 0	0 2	OF	0 4

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

I. DESCRIPTION OF EVENT

This LER is submitted to provide information of potential interest to the industry. On January 22, 1988, with the reactor operating at 100 percent (%) power, it was determined that a potentially nonconservative trip setting in the Overtemperature Delta Temperature (OTAT)¹ setpoint existed in H. B. Robinson Technical Specification 2.3.1.2.d.² The setpoint was initially questioned during a review of the short RTD scram delay response time of 2.3 seconds as reflected in the FSAR.

This issue was first brought to the licensee's attention on December 12, 1987. A Plant Nuclear Safety Committee (PNSC) Meeting was convened to discuss the details of the issue and to consider corrective actions. At that time, the Committee concurred that there was not sufficient data to categorically determine that an unanalyzed condition existed. For conservatism, the PNSC directed that a Plant setpoint revision be utilized immediately to revise the OTAT "K1" bias constant. On January 20, 1988, the issue was again presented to the Plant Nuclear Safety Committee for review as an update of a potential unreviewed safety question. The Committee then directed that the fuel vendor's³ analysis, which was already in progress, continue on an expedited basis, and that the Senior NRC Resident Inspector for H. B. Robinson be informed of this issue.

This issue was reported to the NRC on January 22, 1988, at 1607 hours, pursuant to 10CFR50.72.b.1.ii(A), as a "potential" unanalyzed condition that could compromise Plant safety.

II. CAUSE OF EVENT

During the early 1970's Robinson Plant changed fuel vendors. The change involved the need for the new fuel vendor to develop the required accident analysis codes for the core. The original vendor's data was not available to the new vendor due to the proprietary nature of the information. As a result, the new fuel vendor developed the codes based upon the response time published in the H. B. Robinson FSAR. It was discovered in December 1987 that this value was in question and a nonconservative time delay may have been used in the development of the accident model by Exxon.

¹EIIS Codes: System-AC; Component - Not Available; Manufacturer - W120

²H. B. Robinson Unit No. 2 is a Westinghouse Pressurized Water Reactor Nuclear Power Plant in commercial operation since March, 1971.

³The Fuel Vendor for H. B. Robinson is Advanced Nuclear Fuels - Exxon

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

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TEXT (If more space is required, use additional NRC Form 365A's) (17)

III. ANALYSIS OF EVENT

A. REASON REPORTABLE

This issue was reported to the NRC pursuant to 10CFR50.72 as a "potential" unanalyzed condition that could significantly compromise Plant safety.

B. SAFETY ASSESSMENT

The contribution of Overtemperature Delta Temperature (OTAT) to the following FSAR accident analysis events were evaluated by the fuel vendor: 1) Loss of External Load; 2) Uncontrolled Rod Withdrawal; and 3) Rod Drop with Active Turbine Runback. Because immediate conservative actions to implement reductions in "K1" and administratively reduce allowable FAH were both in the conservative direction, the probability and/or consequences of an accident described in Chapter 15 of the FSAR was not increased. The OTAT circuitry would continue to provide the same reactor trips, although at a lower temperature for conservatism. The basis for Technical Specification Safety Limits establishes a limiting value for the Departure From Nucleate Boiling Ratio (DNBR) of 1.17 which supplies sufficient margin to preclude fuel damage.

IV. CORRECTIVE ACTION

The Plant Nuclear Safety Committee was convened on December 12, 1987, to discuss this issue. The Committee determined that there was not sufficient data available at that time to categorically determined whether or not an unanalyzed situation was present. For conservatism, the Committee directed that a Plant setpoint revision be utilized to revise OTAT "K1" bias constant, based on a sensitivity evaluation performed by the fuel vendor, to compensate for the difference between original the delay time considered by the fuel vendor and the delay used in the current analysis.

During a regular meeting on January 20, 1988, the PNSC again discussed this issue. The committee requested that the reanalysis be expedited. The results received February 18, 1988, concluded that applicable acceptance criteria are met with the current Technical Specification limit for ΔH of 1.65 and the current Technical Specification Overtemperature Delta-T trip function parameters. The Licensee intends to reset the all trip settings to the original configuration at its earliest convenience. Current settings are conservative to the Technical Specification requirements.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

V. ADDITIONAL INFORMATION

A. Failed Components

There were no failed components applicable to this Licensee Event Report.

B. Previous Similar Events

There have been no previous events similar to this Licensee Event Reports.



Carolina Power & Light Company

ROBINSON NUCLEAR PROJECT DEPARTMENT
POST OFFICE BOX 790
HARTSVILLE, SOUTH CAROLINA 29550

FEB 19 1988

Robinson File No: 13510C

Serial: RNP/88-0674
(10 CFR 50.73)

United States Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D. C. 20555

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261
LICENSE NO. DPR-23
LICENSEE EVENT REPORT 88-002-00

INFORMATION REPORT

Gentlemen:

The enclosed Licensee Event Report (LER) is submitted for information only since it has been determined not to be reportable in accordance with 10 CFR 50.73. However, because of the potential generic implications of event and since an immediate notification was made, it is being reported in the format according to NUREG-1022 including Supplements No. 1 and 2.

Very truly yours,

R. E. Morgan
General Manager

H. B. Robinson S. E. Plant

RDC:jch

Enclosure

cc: Dr. J. N. Grace
Mr. L. W. Garner
INPO

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