NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Oconee Nuclear Station, Unit 1	0 5 0 0 0 2 6 9	1 OF 0 3

TITLE (4)
Exceeding of RCS Cooldown Rate

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)
1 0	0 6	8 4	8 4	0 0 4	0 0	1 1	0 2	8 4		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10) 0 0 0	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
	20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
	20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
	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	TELEPHONE NUMBER
Richard F. Haynes-Licensing	AREA CODE 7 0 4 3 7 3 - 7 1 2 9

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	

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

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

On October 6, 1984 at 0330 hours, the reactor coolant system (RCS) cooldown rate was exceeded when the temperature decreased 57° F in a ½ hour time interval. The maximum allowed rate of temperature decrease is 50°F per ½ hour, according to the technical specifications. The event occurred while Unit 1 was progressing to cold shutdown for commencement of refueling operations. Discovery of this event occurred two days later while the recorded data were being reviewed; the delay in identifying the event is attributable to misinterpretation of the technical specification by the personnel involved. The cause of this incident was personnel error. Corrective action consisted of counseling the individuals involved, and furnishing them with the appropriate interpretation of the applicable technical specification. Additionally, other appropriate personnel (operators) have been notified of the appropriate interpretation.

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Description of Occurrence:

On October 6, 1984 at 0245 hours, Cooldown from 532°F was begun on the Unit 1 reactor coolant system (RCS). In order to attain a cold shutdown condition, the applicable operations procedure specifies a cooldown rate not to exceed 45°F per ½ hour so as to assure compliance with the 50°F per ½ hour technical specification requirement.

At 0300 hours, with RCS temperature of 519°F, the cooldown rate was increased in order to achieve a RCS temperature of 487°F by 0315 hours. By 0315 hours, the RCS temperature had decreased to 490°F. This corresponded to a cooldown rate of 42°F per ½ hour during the 0245 to 0315 time period. The cooldown rate previously established at 0300 hours was maintained. By 0330 hours the RCS temperature had decreased to 463°F.

At this point (0330 hours), the personnel present realized that the rate had exceeded both the 45°F per ½ hour procedural limit as well as the 50°F per ½ hour Technical Specification Limit for the 0300 to 0330 time period. At this time (0330 hours), the cooldown rate was decreased below the procedural limit of 45°F per ½ hour.

The discovery that the technical specification had actually been exceeded took place October 8, 1984, at approximately 1200 hours when the recorded information on the cooldown was reviewed. It was noted that the 45°F per ½ hour procedural limit and the 50°F per ½ hour rate given by the technical specification both apply to any ½ hour period.

Cause of Occurrence:

The cause of this incident is attributable to personnel error. The error occurred due to personnel interpreting the intent of the specification as indicating consecutive ½ hour periods. With this interpretation, it appeared that the limiting rate had not been exceeded. The appropriate interpretation, that the limit applied to any ½ hour period, was noted only after a review of the recorded data.

Analysis of Occurrence:

Various transients have been previously analyzed, from the standpoint of safety, for the Oconee Units. The October 6, 1984 Unit 1 cooldown is bounded by one of these analyzed transients which involved a 3.8°F per minute cooldown from 557°F to 500°F and a 1.67°F per minute cooldown below 500°F. It is seen that the average cooldown for this specific transient is approximately 2.04°F per minute (between 519°F and 462°F over about 28 minutes), whereas in the October 6th incident the cooldown rate was 1.90°F per minute (between 519°F and 462°F over 30 minutes).

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

Furthermore, the high cooldown rate took place at temperatures in excess of 350°F. At these elevated temperatures, the reactor vessel material toughness is high, so pressurized thermal shock is not a problem. Much more severe cooldowns have been analyzed for Oconee and found to present no thermal shock hazard. Therefore, the excessive cooldown rate experienced during the Unit 1 cooldown did not affect the health and safety of the public.

Corrective Action:

The individual personnel involved in the incident have been counseled concerning the event and have been informed as to the appropriate interpretation of the applicable technical specification. As a further measure to prevent a future recurrence, training packages have been issued to inform all appropriate personnel (operators) of this incident, and of the appropriate technical specification interpretation.

DUKE POWER COMPANY
P.O. BOX 33189
CHARLOTTE, N.C. 28242

HAL B. TUCKER
VICE PRESIDENT
NUCLEAR PRODUCTION

TELEPHONE
(704) 373-4531

November 2, 1984

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

Subject: Oconee Nuclear Station, Unit 1
Docket No. 50-269
LER 269/84-04

Pursuant to 10 CFR 50.73 Sections (a)(1) and (d), attached is Licensee Event Report 269/84-04 concerning an incident in which the specified temperature decrease rate for the Unit 1 reactor coolant system was exceeded; the report is submitted in accordance with §50.73 (a)(2)(i). This event was considered to be of no significance with respect to the health and safety of the public.

Very truly yours,

H.B. Tucker /BS

Hal B. Tucker

RFH:slb

Attachment

cc: Mr. James P. O'Reilly, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

INPO Records Center
Suite 1500
1100 Circle 75 Parkway
Atlanta, Georgia 30339

Ms. Helen Nicolaras
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

American Nuclear Insurers
c/o Dottie Sherman, ANI Library
The Exchange, Suite 245
270 Farmington Avenue
Farmington, CT 06032

Mr. J.C. Bryant
NRC Resident Inspector
Oconee Nuclear Station

M&M Nuclear Consultants
1221 Avenue of the Americas
New York, New York 10020

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