DUKE POWER COMPANY
POWER BUILDING
422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

TELEPHONE: AREA 704
373-4083

July 30, 1979

Mr. James P. O'Reilly, Director
U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, Suite 3100
Atlanta, GA 30303

REGULATORY DOCKET FILE COPY

Re: Oconee Unit 1
Docket No. 50-269

Dear Mr. O'Reilly:

Please find attached a preliminary copy of Reportable Occurrence Report RO-269/79-21. This report is being submitted pursuant to Oconee Nuclear Station Technical Specifications 6.2 and 6.6.2.1.a(3) as a result of abnormal degradation in the pressure boundary of the low pressure injection cooling system, and describes an incident which is considered to have no significance with respect to its effect on the health and safety of the public.

My letter of July 18, 1979 addressed the delays involved in preparing this report.

Very truly yours,

William O. Parker, Jr.

SRL/sch
Attachment

cc: Director, Office of Management Information
and Program Control

A002
S 1/1

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DUKE POWER COMPANY
Oconee Unit 1

Report Number: RO-269/79-21

Report Date: July 30, 1979

Occurrence Date: July 4, 1979

Facility: Oconee Unit 1, Seneca, South Carolina

Identification of Occurrence: Low Pressure Injection Cooler Leak

Conditions Prior to Occurrence: Cold Shutdown

Description of Occurrence:

During the startup of Unit 1 on July 4, 1979, low pressure injection (LPI) cooler 1A was discovered to be leaking to the condenser cooling water system. The leak allowed approximately 456 microcuries of corrosion and fission products to be released to Lake Keowee. The decay heat removal system was in a switch-over mode in anticipation of heatup of the primary system, when an increase in the activity recorded by the low pressure service water (LPSW) discharge monitors was noted, indicating a possible leak from one of the LPI coolers. By isolating each cooler and sampling the LPSW discharge, at 1830 on July 4, 1979 it was determined that LPI cooler 1A was leaking slightly. Eddy current testing revealed five tubes with through-wall indications of greater than 40%. Each of the tubes was plugged. In addition, one tube was plugged by mistake. From July 12 to July 15, 1979, LPSW outlet samples were taken every three hours, and it was determined that activity levels had been returned to below the permissible limits. The cooler was then returned to service.

Apparent Cause of Occurrence:

Although the exact cause of the tube leaks has not been determined, they are presently considered to be the result of overpressurization of the LPI cooler. This incident is still under investigation, and the report will be supplemented when further information becomes available.

Analysis of Occurrence:

Since the tube leaks were very slight, a total of only approximately 456 microcuries of corrosion and fission products was released to Lake Keowee. In addition, if decay heat removal capability had been required, LPI cooler B was available and in proper condition. The six tubes removed from service represent a very small decrease in the heat transfer area of the cooler, well within the safety factor allowed by the cooler design. However, the leakage constitutes abnormal degradation of a reactor coolant pressure boundary, and must therefore be reported pursuant to Oconee Nuclear Station Technical Specification 6.6.2.1.a(3), although it is considered to be of no significance with respect to safe operation of the unit, and the health and safety of the public were not affected.

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Corrective Action:

All five tubes with through-wall indications greater than 40% were plugged. In addition, the relief valve at the LPI cooler A inlet was reset to the system design pressure of 370 psig, and steps were taken to assure that the relief valve at the LPI cooler B inlet was also properly set. Further corrective actions which may be taken subsequent to completing the investigation of this incident will be described when this report is supplemented.

NRC FORM 366
(7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

EXHIBIT A

CONTROL BLOCK: (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1 | S C N E 1 (2) LICENSEE CODE | 0 0 - 0 0 0 0 0 - 0 0 (3) LICENSE NUMBER | 4 1 1 1 1 (4) LICENSE TYPE | (5) CAT

CON'T

0 1 | REPORT SOURCE L (6) | 0 5 0 0 0 2 6 9 (7) DOCKET NUMBER | 0 7 0 4 7 9 (8) EVENT DATE | 0 7 3 0 7 9 (9) REPORT DATE

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 On July 4, 1979, a slight leak in LPI cooler A allowed approximately 456 micro-
0 3 curies of corrosion and fission products to be released to Lake Keowee. Since
0 4 the release was very small and since the other LPI cooler was available to
0 5 remove decay heat if required, the leakage is considered to be of no signifi-
0 6 cance with respect to safe operation and the health and safety of the public
0 7 were not affected.
0 8

	SYSTEM CODE	CAUSE CODE	CAUSE SUBCODE	COMPONENT CODE	COMP. SUBCODE	VALVE SUBCODE
0 9	S F (11)	E (12)	C (13)	H T E X C H (14)	C (15)	Z (16)

(17) LER/RO REPORT NUMBER

EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE	REPORT TYPE		REVISION NO.
7 9	—	0 2 1	/	0 1	T	—	0

ACTION TAKEN	FUTURE ACTION	EFFECT ON PLANT	SHUTDOWN METHOD	HOURS (22)	ATTACHMENT SUBMITTED	NPRD-4 FORM SUB.	PRIME COMP. SUPPLIER	COMPONENT MANUFACTURER
B (18)	G (19)	C (20)	Z (21)	0 3 0 0	Y (23)	Y (24)	L (25)	B 0 1 5 (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 The LPI cooler leak is considered to be the result of overpressurization of
1 1 the cooler. Five tubes which showed through-wall degradation greater than
1 2 40% were plugged. Administrative actions will be taken to preclude over-
1 3 pressurization in the future.
1 4

	FACILITY STATUS	% POWER	OTHER STATUS (30)	METHOD OF DISCOVERY	DISCOVERY DESCRIPTION (32)
1 5	G (28)	0 0 0 (29)	NA	A (31)	Operator Observation

	ACTIVITY RELEASED	CONTENT OF RELEASE	AMOUNT OF ACTIVITY (35)	LOCATION OF RELEASE (36)
1 6	M (33)	M (34)	456 microcuries	LPSW discharge to Lake Keowee

PERSONNEL EXPOSURES

	NUMBER	TYPE	DESCRIPTION (39)
1 7	0 0 0 (37)	Z (38)	NA

PERSONNEL INJURIES

	NUMBER	DESCRIPTION (41)
1 8	0 0 0 (40)	NA

LOSS OF OR DAMAGE TO FACILITY (43)

	TYPE	DESCRIPTION
1 9	Z (42)	NA

PUBLICITY

	ISSUED	DESCRIPTION (45)	NRC USE ONLY
2 0	Y (44)	Press release on July 5, 1979.	

NAME OF PREPARER S. R. Lewis PHONE: (704) 373-8285