

AEC CONTRIBUTION FOR PART 50 DOCKET MATERIAL
(TEMPORARY FORM)

CONTROL NO: 8395

FILE: _____

FROM: Duke Power Company Charlotte, N.C. 28201 Mr. A.C. Thies		DATE OF DOC 11-21-73	DATE REC'D 11-23-73	LTR X	MEMO	RPT	OTHER
TO: A. Giambusso		ORIG 3 signed	CC	OTHER	SENT AEC PDR XXX SENT LOCAL PDR XXX		
CLASS	UNCLASS XXX	PROP INFO	INPUT XXX	NO CYS REC'D 40	DOCKET NO: 50-269/270		

DESCRIPTION:
Ltr notarized 11-21-73, trans the following...

ENCLOSURES:
Request for change to tech specs consist of replacement pages for Tech Spec 3.4...

ACKNOWLEDGED

(40 cys encl rec'd)

DO NOT REMOVE

PLANT NAME: Oconee

FOR ACTION/INFORMATION

11-23-73 JB

BUTLER(L) W/ Copies	✓ SCHWENCK(L) W/6 Copies	ZIEMANN(L) W/ Copies	REGAN(E) W/ Copies
CLARK(L) W/ Copies	STOLZ(L) W/ Copies	DICKER(E) W/ Copies	W/ Copies
GOLLER(L) W/ Copies	VASSALLO(L) W/ Copies	KNIGHTON(E) W/ Copies	W/ Copies
KNIEL(L) W/ Copies	SCHEMEL(L) W/ Copies	YOUNGBLOOD(E) W/ Copies	W/ Copies

INTERNAL DISTRIBUTION

✓ <u>REG FILE (2)</u>	<u>TECH REVIEW</u>	DENTON	<u>LIC ASST</u>	<u>A/T IND</u>
✓ AEC PDR (2)	HENDRIE	GRIMES		BRAITMAN
✓ OGC, ROOM P-506A	SCHROEDER	GAMMILL	DIGGS (L)	SALTZMAN
✓ MUNTZING/STAFF	MACCARY	KASTNER	GEARIN (L)	B. HURT
CASE	KNIGHT	BALLARD	✓ GOULBOURNE (L)	<u>PLANS</u>
GIAMBUSO	PAWLICKI	SPANGLER	LEE (L)	MCDONALD
BOYD	SHAO		MAIGRET (L)	✓ DUBE w/Input
MOORE (L) (BWR)	STELLO	<u>ENVIRO</u>	SERVICE (L)	<u>INFO</u>
✓ DEYOUNG (L) (PWR)	HOUSTON	MULLER	SHEPPARD (E)	C. MILES
SKOVHOLT (L)	NOVAK	DICKER	SMITH (L)	✓ Cabell
P. COLLINS	ROSS	KNIGHTON	TEETS (L)	
	IPPOLITO	YOUNGBLOOD	WADE (E)	
✓ REG OPR	TEDESCO	REGAN	WILLIAMS (E)	
FILE & REGION(3)	LONG	PROJECT LDR	WILSON (L)	
MORRIS	LAINAS			
STEELE	BENAROYA	<u>HARLESS</u>		
	VOLLMER			

EXTERNAL DISTRIBUTION

✓ 1 - LOCAL PDR <u>Walhalla, S.C.</u>	(1)(2)(10)-NATIONAL LAB'S	1-PDR-SAN/LA/NY
✓ 1 - DTIE(ABERNATHY)	1-ASLBP(E/W Bldg, Rm 529)	1-GERALD LELLOUCHE
✓ 1 - NSIC(BUCHANAN)	1-W. PENNINGTON, Rm E-201 GT	BROOKHAVEN NAT. LAB
1 - ASLB(YORE/SAYRE/ WOODARD/"H" ST.	1-CONSULTANT'S	1-AGMED(Ruth Gussman)
✓ 16 - CYS ACRS HOLDING Sent to Goulbourne	NEWMARK/BLUME/AGBABIAN	RM-B-127, GT.
11-23-73	1-GERALD ULRIKSON...ORNL	1-RD..MULLER..F-309 G

App'l
lg

DUKE POWER COMPANY

POWER BUILDING

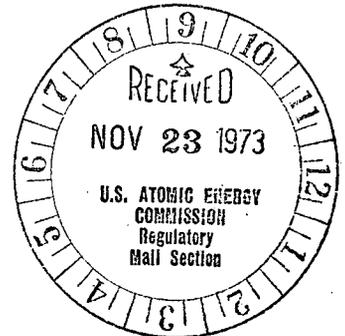
422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28201

A. C. THIES
SENIOR VICE PRESIDENT
PRODUCTION AND TRANSMISSION

P. O. Box 2178

November 21, 1973

Mr. Angelo Giambusso
Deputy Director for Reactor Projects
Directorate of Licensing
U. S. Atomic Energy Commission
Washington, D. C. 20545



Re: Oconee Units 1 and 2
Docket Nos. 50-269 and -270

Dear Mr. Giambusso:

The Oconee Nuclear Station Technical Specifications, Appendix A to Facility Operating Licenses DPR-38 and DPR-47, specify that the turbine bypass system shall have four valves operable, except that one valve may be removed from service for maintenance for a period not to exceed 24 hours. (Technical Specification 3.4.3) It is requested that this technical specification be deleted since the capability to remove decay heat from the reactor core is assured by Technical Specification 3.4.2, which requires the 16 steam system safety valves to be operable. Additional capability for decay heat removal is assured by manually-operated steam relief valves and manual operability of the turbine bypass valves. Furthermore, the deletion of Technical Specification 3.4.3 will facilitate turbine testing since this test requires the four turbine bypass valves be isolated.

Section 7.2.3.3.4 of the Oconee FSAR states that the combined actions of the control system and the turbine bypass valves permit a 40 percent load rejection without main steam safety valve action. Section 14.1.2.8.2 of the Oconee FSAR states that with unit operation with 1 percent defective fuel and 1 gpm steam generator tube leakage, the total integrated thyroid dose is 0.8 millirem at the one mile exclusion distance due to main steam relief following a loss of load from 100 percent power. The dose to the thyroid could not be increased by more than 40 percent or 1.12 millirem without turbine bypass system actuation.

The turbine bypass system will normally be operable during plant operation; however, there is no need to require its availability in the Technical Specifications. Decay heat removal capability is assured by other means, and the additional contribution to the dose at the site boundary for loss of load considerations when operating without the turbine bypass system is negligible.

8395

Mr. Angelo Giambusso
Page 2
November 21, 1973

Please find attached replacement pages for Technical Specification 3.4 which reflect the requested change.

Since turbine testing for Oconee Unit 1 is scheduled to begin December 1, 1973, your prompt consideration of this change is requested.

Very truly yours,

s/A. C. Thies
A. C. Thies

A. C. THIES, being duly sworn, states that he is Senior Vice President of Duke Power Company; that he is authorized on the part of said Company to sign and file with the Atomic Energy Commission this request for amendment of the Oconee Nuclear Station Technical Specifications, Appendix A to Facility Operating Licenses DPR-38 and DPR-47; and that all statements and matters set forth therein are true and correct to the best of his knowledge.

s/A. C. Thies
A. C. Thies, Senior Vice President

ATTEST:

s/John C. Goodman, Jr.
John C. Goodman, Jr.
Assistant Secretary
(Seal)

Subscribed and sworn to before me this 21st day of November, 1973.

s/Edna B. Farmer
Notary Public
(Notarial Seal)

My Commission Expires:

October 24, 1977

3.4 STEAM & POWER CONVERSION SYSTEM

Applicability

Applies to the turbine cycle components for removal of reactor decay heat.

Objective

To specify minimum conditions of the turbine cycle equipment necessary to assure the capability to remove decay heat from the reactor core.

Specification

The reactor shall not be heated above 250°F unless the following conditions are met:

3.4.1 Capability to remove a decay heat load of 5 percent full reactor power from at least one of the following means:

- a. A hotwell pump, condensate booster pump, and a main feedwater pump.
- b. The emergency feedwater pump.
- c. A hotwell pump and a condensate booster pump.

3.4.2 The sixteen steam system safety valves are operable.

3.4.3 A minimum of 72,000 gallons of water per operating unit shall be available in the upper surge tank, condensate storage tank, and hotwell.

3.4.4 The emergency condenser circulating water system shall be operable as per Specification 4.1.

Bases

The feedwater system and the turbine bypass system are normally used for decay heat removal and cooldown above 250°F. Feedwater makeup is supplied by operation of a hotwell pump, condensate booster pump and a main feedwater pump.

The feedwater flow required to remove decay heat corresponding to 5 percent full power with saturated steam in the pressure range from 30 psia (saturation pressure at 250°F) to 1065 psia (lowest setting of steam safety valve) as a function of feedwater temperature is:

<u>°F</u>	<u>Flow, GPM</u>
60	750
90	770
120	790
180	840

One hotwell pump plus one condensate booster pump will supply at least 3000 GPM at 550 psia, and one hotwell pump plus one booster pump plus one main

feed pump will supply at least 3000 gpm at 1065 psia. The emergency feed pump will supply 1080 gpm at 1065 psia.

In the event of complete loss of electrical power, feedwater is supplied by a turbine driven emergency feedwater pump which takes suction from the upper surge tanks and hotwell. Decay heat can be removed from the steam generators by steam relief through the main steam valves. Normally, decay heat is removed by steam relief through the turbine bypass system to the condenser. Condenser cooling water flow is provided by a siphon effect from Lake Keowee through the condenser for final heat rejection to the Keowee Hydro Plant tailrace.

The minimum amount of water in the upper surge tank and condensate storage tank is the amount needed for 11 hours of operating per unit. This is based on the conservative estimate of normal makeup being 0.5% of throttle flow. Throttle flow at full load, 11,200,000 lbs/hr., was used to calculate the operation time. For decay heat removal the operation time with the volume of water specified would be considerably increased due to the reduced throttle flow.

The relief capacity of the sixteen steam system safety valves is 13,105,000 lbs/hr.

REFERENCE

FSAR, Section 10