## YANKEE ATOMIC ELECTRIC COMPANY



20 TURNPIKE ROAD, WESTBORO, MASSACHUSETTS 01581 TELEPHONE 617 366-9011

October 12, 1972

United States Atomic Energy Commission Washington, D. C. 20545

Attention: Directorate of Licensing

Reference: License No. DPR-3 (Docket No. 50-29)

Dear Sirs:

Pursuant to Section 50-59 of 10 CFR Part 50, Yankee Atomic Electric Company hereby requests authorization to make the following change:

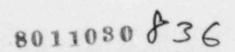
PROPOSED CHANGE: Reference is made to Section 107 of the license application, Core Instrumentation and particularly to the instrumentation location diagram on Page 107:3. We propose the following:

"To operate the reactor for the remainder of Core X with the north side instrumentation port sealed off which will result in a reduction of available flux wire paths from 19 to 8".

Reason for Change: Leakage has developed in one or more flux tubes below the seal plug area. As a result, boron deposition has rendered all paths in this instrument port inoperable. The remaining thimbles, which pass through the east port, make it possible to insert flux wires to core positions G-5, H-2, H-5, H-8, J-3, J-4, J-5, and K-5, thus providing effective monitoring of essentially a one-eighth section of the core. A letter dated September 18, 1972 to the AEC sets forth Yankee's plan to replace the incore package and reactor head seal arrangement.

Description of Change: (Refer to Page 107:4B of the FHSR). A primary seal will be effected by cutting off the top of the north port backup plug and TIG welding stainless steel plugs into the exposed tube ends. A secondary seal will consist of a 3" schedule 160 hemispherical pipe cap welded to the existing seal cap. All fabrication, installation and testing of this repair will be conducted in accordance with approved written procedures.





U. S. Atomic Energy Commission Attn: Directorate of Licensing Proposed Change No. 103 October 12, 1972

Safety Considerations: A comparison between analytical predictions and experimental data obtained during reactor operation has consistently shown the experimentally determined maximum hot channel factors to be significantly less than the predicted hot channel factors.

Methods have been developed for analyzing core power distribution using core outlet thermocouples data for radial power distribution and flux wire data for axial power distribution. In this manner, hot channel factors in the core can be adequately determined using only a few flux wire positions in one quadrant of the core. The eight flux wire positions are adequate to permit continued use of this method.

It is our opinion that the Proposed Change does not present significant safety considerations not described or implicit in the license application, as amended.

Scheduling of Change: The plant is scheduled to be shutdown October 20, 1972 to replace control rods. During this outage, provided approval is granted, the modifications described herein will be performed.

Respectfully submitted,

YANKEE ATOMIC ELECTRIC COMPANY

L. E. Minnick Vice President

COMMONWEALTH OF MASSACHUSETTS)

) ss.

COUNTY OF WORCESTER

Then personally appeared before me, Lawrence E. Minnick, who, being duly sworn did state that he is a Vice President of Yankee Atomic Electric Company, that he is duly authorized to execute and file the foregoing request in the name and on the behalf of Yankee Atomic Electric Company, and that the statements therein are true to the best of his knowledge and belief.

Armand R. Soucy

Notary Public My Commission Expires September 9, 1972

## WED DISTRIBUTION FOR PART 50 DOCKET MATERIAL (TEMPORARY FORM)

CONTROL NO: 5683

1-RD...MULLER...F-309GT

						FIL	-		
Yankee Atomic Electric Company Westboro, Mass. 01581				REC'D	LTR	MEMO	RPT	OTHER	
. E. Minnick		10-12-72 ORIG	10-18	OTHER	_X_	SENT	AEC PDI	X	
		01.10		7212311			LOCAL I	ATT-REPORTED BY METAL PROPERTY AND ADDRESS OF THE PARTY O	
DRL		3 signed							
CLASS: UPROP INFO		INPUT	NO CYS REC'D DOCKET N			T NO:			
		Y	x 40		5	50-29			
DESCRIPTION:			ENCLOSURES:						
Ltr submitting propo Tech Specs, notatize				No. of the same of					
			DU NU	T REI	AOVI	-			
						_			
			All						
PLANT NAMES:									
		TOD ACCITOMAT	NT NOT DAY A CT	rost -	0.10	70	AB		
	77/7	FOR ACTION/I		NAME OF TAXABLE PARTY.	0-18-	-		mirror)	
	Comies	VASSALLO(L) W/ Copies		EMANN(L			HTON(EN Copies	IVIRO)	
V/ Copies W/ Copies CLAFK(L) SCHWENCER(L)		H. DENTON CHITWOOD(FM)			YOUNGBLOOD (ENVIRO)				
	Copies	W/ Copies		/ Copie			Copies		
COLLER STO	Z(L)	SCHEMEL(L)		ICKER (EN					
T/ Copies W/	Copies	W/ 9 Copies	W	/ Copie	S	W/	Copies		
				0.47					
		INTERNAL DIS	WELSTIN TO		c	WA	DE.	Ξ	
	TECH REVIEW	VOLIMER DENION		HARLES	5		AFER	F & M	
	SCHROEDER	GRIMES		F & M			OWN	E	
	ACCARY	GAMMILL		SMILEY			WILLIA		
CASE	LANGE	KASTHER		NUSSBA	UNER		GOULEC	DURNE L	
GT 11 T11830	PAWLICKT	BALLARD				A/	TIMD		
BOID-L(BIR)	SHAO	FINE		LIC AS			ATTMAN		
DEMOTIO-L(PWR)	KNUTH			SERVIC	E L	SA	LTZMAN		
SHOVEDIN-L	STELLO	ENVIRO FULLER		MASON WILSON	L	PT	ANS		
The state of the s	MOORE HOUSTON	DICKER		MAIGRE			DONALD		
	TEDESCO	MIGHTON		SMITH	L	- DU			
	LONG	YOUNGBLOO	DD	GEARII	L		- K. T. L.		
	LAINAS	PROJECT I		DIGGS	L		FO		
SIDLL	BENAROYA			TEETS	L	C.	MILES		
/	M. JINKS			LEE	L				
		EXTERNAL DIS	STRIBUTT	ON		10.4	HIII		
*_TOO!T DOD									
1-ICCAL PDR_ L-DINI(ABERNATHY)		(1)(5)(9)-NATIONAL LAB'S				1_00	1-PDR-SAN/LA/NY		
/		1-R. CARROLL-OC, GT-B227					1-GERALD LELLOUCHE		
1-DSIG(RUCHAMAN)		1-R. CATUIN, A-170-GT					BROOKHAVEN NAT. LAB		
1-MSIO(BUCHANAN) 1-ASIB-YORE/SAYRE									
1.ASIB-YORE/SAYRE		1-R.	. CATUIN	A-170	-GT	BF 1-AG	ROOKHAV	EN NAT. LAB LITER KOESTER	

SENT TO LIC ASST NEWMARK/BLUME/AGABIAN S. TEETS FOR DIST ON 10-18-72