

YANKEE ATOMIC ELECTRIC COMPANY

710-200-0139

WYF 74-52

20 Turnpike Road Westborough, Massachusetts 01581

December 11, 1974

United States Atomic Energy Commission
Directorate of Regulatory Operations
Region I
631 Park Avenue
King of Prussia, Pennsylvania 19406

Attention: James P. O'Reilly, Director

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

Dear Sir:

In accordance with Section E.2.b, Appendix "A" Technical Specifications of the Reference License the following Unusual Event is reported.

A review of ECCS two train pump flow indicated that the data did not support the assumptions used in the accident analysis. In fact, the flow for two of the three trains as determined from shield tank cavity level change and the average flow as measured by the flow instrumentation is as follows:

	<u>Cavity Level Change</u>	<u>Instrumentation</u>
Trains 1 and 2	2290 gpm	2180 gpm
Trains 2 and 3	2278 gpm	2220 gpm
Trains 1 and 3	2271 gpm	2320 gpm

These values are consistent with the initial design criteria for the emergency core cooling system. However, the two train pump flow used by Westinghouse in the ECCS analysis was 2480 gpm. This was an input error. The maximum allowable peak linear heat generation rate calculated for the Yankee Rowe core using this erroneous value was 13.06 kw/ft.

When this error was verified, the plant was administratively derated to 90% of full power (a resultant power level of 540 Mwt) as a conservative measure pending further investigation. This investigation by Yankee Atomic Electric Company has concluded that operation at or below 11.6 kw/ft will conservatively maintain all safety margins previously indicated in the ECCS analyses. In-core measurements at the plant verify that the 11.6 kw/ft linear heat generation rate limit will not be exceeded by operation at 100% plant output (600 Mwt). Plant output was accordingly increased to 100% on December 9, 1974. The Directorate of Licensing was informed of the

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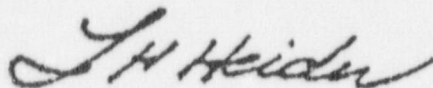
problem and Yankee Atomic Electric Company immediately began preparation of a supplerent to our Proposed Change No. 117 to account for the error.

A review of Core X operating data confirms that the peak linear heat generation rate did not exceed 11.6 kw/ft during that cycle. During the period between September 9, 1974, and December 6, 1974, the conservative limit of 11.6 kw/ft was exceeded at some points. It should be recognized that until the results of a revised ECCS analysis are available, it cannot be concluded that the operating conditions during that period were such that the applicable ECCS criteria were, in fact, not met.

We are currently discussing the problem with Westinghouse and desire to have a revised analysis performed as soon as possible. The results will be submitted to the Directorate of Licensing as soon as they are available and we shall keep the Directorate of Licensing informed as to schedule.

Very truly yours,

YANKEE ATOMIC ELECTRIC COMPANY



L. H. Reider
Asst. Vice President

LIH/kg

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(TEMPORARY FORM)

CONTROL NO: 12743

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					SENT LOCAL PDR XXXXXX		
CLASS	UNCLASS	PROP INFO	INPUT	NO CYS REC'D 1	DOCKET NO: 50-29		
	XXX						

DESCRIPTION: Ltr reporting an Unusual Event involving ECCS two train pump flow indicated that the data did not support the assumptions used in the accident analysis.....

ENCLOSURES:

Do XXXXXXXXXX

PLANT NAME: YAEC

FOR ACTION/INFORMATION

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