Regulatory

File Ov.

Telephone 617 366-9011

TWX 710-390-0739

YANKEE ATOMIC ELECTRIC COMPANY



20 Turnpike Road Westborough, Massachusetts 01581

September 14, 1973

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

Attention: Directorate of Licensing

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

Dear Sir:

Pursuant to Section 50-59 of the Commission's regulations, Yankee Atomic Electric Company hereby requests to make the following change:

PROPOSED CHANGE: Reference is made to the description of the Emergency Core Cooling System in Yankee Atomic Electric Company Change number 97 and in particular to the description of the initiating circuitry in Attachment B of Supplement #3, Change #97. We propose the following: To provide vapor container overpressure signals to the WL relays in parallel with the existing main coolant pressure and pressurizer pressure signals in order to provide a diverse method of emergency core cooling system initiation.

REASON FOR CHANGE: This proposed change is the result of a study undertaken by Yankee Atomic Electric Company to determine an additional method of initiating the emergency core cooling system. The study was proposed in our letter dated March 30, 1972 and confirmed by your approval to Change #97, dated April 14, 1972.

DESCRIPTION OF CHANGE: Diverse initiation of the emergency core cooling system will be accomplished by providing vapor container overpressure signals to the WL relays in parallel with the existing main coolant and pressurizer pressure signals. Two pressure switches will be mounted in the primary auxiliary building. One switch, designated PS-238, will sense the vapor container pressure via the open bulb system and be electrically connected to trip WL 1-1. The other pressure switch, designated PS-239, will use the vapor container closed bulb system piping to sense vapor container over pressure and will be electrically connected to trip WL-1. The closed bulb system will be vented to the vapor container pressure. Use of the closed bulb system

8011170291

P

7063

September 14, 1973 Page Two

United States Atomic Energy Commission Attn: Directorate of Licensing

(which is isolated from service at the present time) does not constitute a reduction in the containment leak rate monitoring capability, as the absolute method of containment leak rate monitoring is used.

SAFETY CONSIDERATIONS: Within the capability of the existing installation this change will meet the requirement of the IEEE 279 criteria, in that (1) the switches are on separate taps and are physically separated, (2) they have been environmentally and seismically qualified, (3) the wiring is physically separated, and (4) the switches are connected to existing circuits that are on separate battery supplies as shown on the attached figures.

A study has been conducted which indicates that for every break over 0.14 ft., the new signal will provide a more rapid actuation signal thereby providing protection which is equal to or better than that provided in the present signal initiating system. For break sizes less than 0.14 ft., the current low pressurizer pressure signal is the first to be initiated. However, the analysis shows that this will not result in increased peak clad temperatures above those presented in Change 97.

The Nuclear Safety Audit and Review Committee has concluded that there are no unreviewed safety considerations relative to this Proposed Change.

SCH.EDULE OF CHANGE: This change will be implemented during the next regularly scheduled refueling period.

We trust you will find the above information satisfactory

Very truly yours,

YANKEE ATOMIC ELECTRIC COMPANY

Assistant Vice President

EWJ/kg

COMMONWEALTH OF MASSACHUSETTS)

SS.

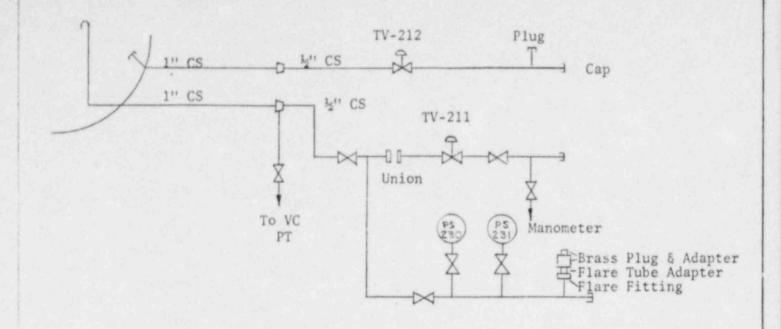
COUNTY OF WORCESTER

Then personally appeared before me, Wendell P. Johnson, who, being duly sworn did state that he is Assistant 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.

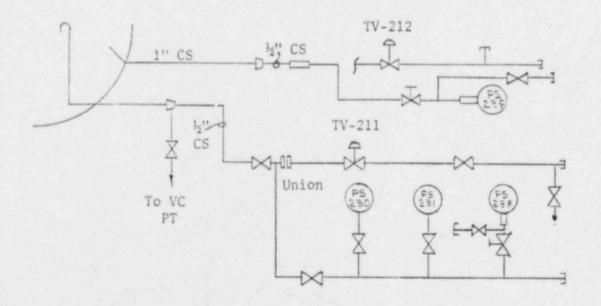
Armand R. Soucy

Notary Public

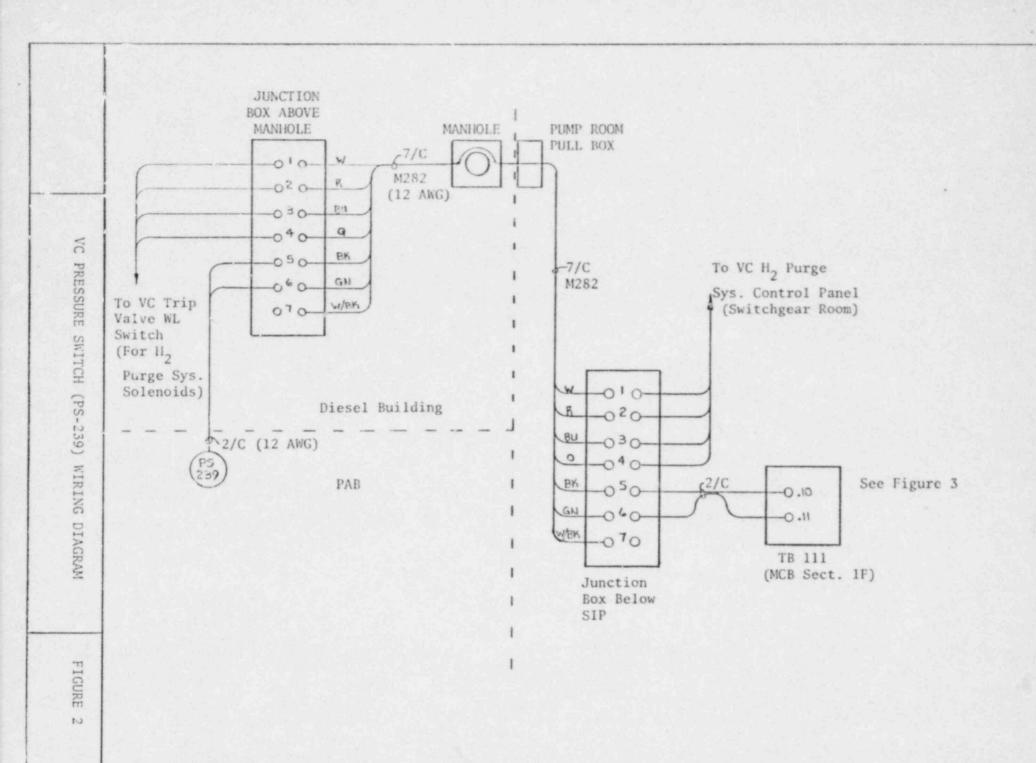
My Commission Expires September 9, 1977

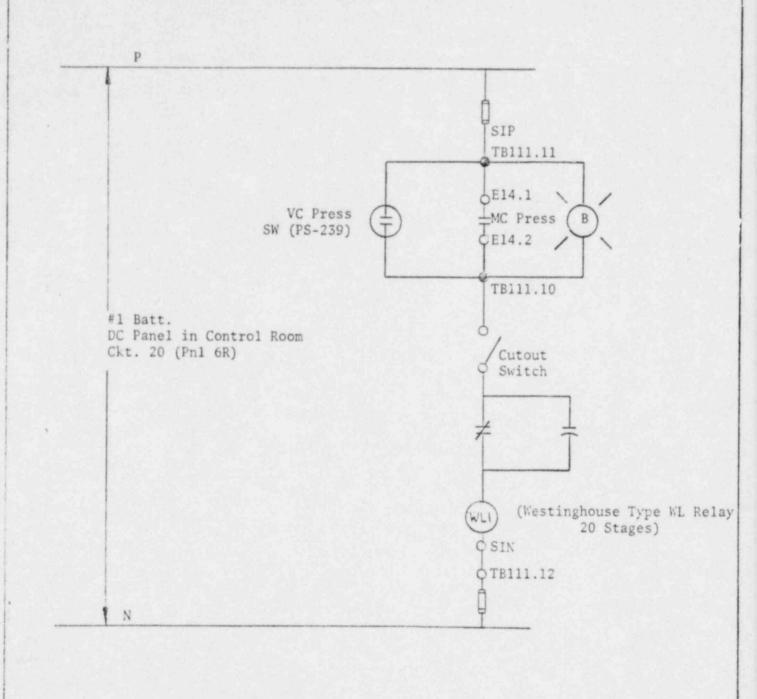


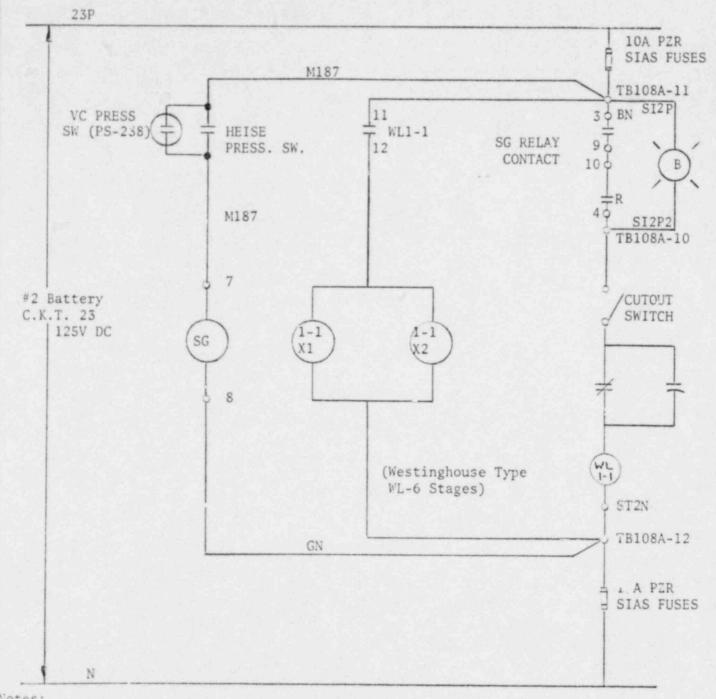
Open & Closed Bulb Piping Before Change



Open & Closed Bulb Piping After Change







Notes:

SG Relay: Westinghouse Style 293B255A20 1.

125 V DC, Contact Ratings: Single 2.4A, 2 IN Series 20A.

Heise Pressure Switch: Barksdale Type B2T-M32SS Differential 15-34 PSI Range O to 3000 PSI