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YANKEE ATOMIC ELECTRIC COMPANY



20 Turnpike Road Westborough, Massachusetts 01581

WYR 78-108

December 12, 1978

United States Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Office of Nuclear Reactor Regulation

Reference: (a) License No. DPR-3 (Docket No. 50-29)
(b) USNRC Letter to YAEC, dated October 26, 1978
(c) USNRC Letter to YAEC, dated November 24, 1978

Dear Sir:

Subject: Systematic Evaluation Program (SEP)

In your letter, reference (b), you requested that we provide additional information relative to SEP Topics VI-7.B, VII-1.A, and VII-2. Additionally, in your letter reference (c), you requested that we examine your draft evaluation of SEP Topic VIII-3.A and respond either by confirming that it is correct or by identifying any error. In response to both of these requests, we hereby submit the following information:

Topic VI-7.B ESF Switchover From Injection to Recirculation Mode
(Automatic ECCS Realignment)

No automatic controllers are used to perform the changeover at Yankee Rowe.

Topic VII-1.A Isolation of Reactor Protection System from Non-Safety Systems, Including Qualification of Isolation Devices

The requested drawings and schematics are being assembled and will be submitted as soon as the package is complete.

Topic VII-2 Engineered Safety Features (ESF) System Logic and Design

The major connected loads of each 480 volt emergency bus consist of a 350 hp low pressure safety injection (LPSI) pump and a 125 hp high pressure safety injection (HPSI) pump. The circuit breakers for the above loads are normally open and the motors are connected to their respective buses only on receipt of a safety injection signal.

On receipt of a safety injection signal together with a loss of offsite power, the LPSI pump breaker on each bus closes when the bus voltage is normal, starting the 350 hp motor. The voltage dip is approximately 35% and the accelerating time approximately 10 seconds. Ten seconds after the voltage has recovered to normal, the 125 hp HPSI

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pump starts. The voltage dip during this phase is approximately 15% and the recovery time approximately 3 seconds.

Additional connected loads from the emergency buses consist of feeders from two of the emergency buses to each of the two manual throw-over facilities which are used to supply the 480 volt emergency motor control centers. These feeders remain connected to the bus under all conditions.

Topic VIII-3.A Station Battery Test Requirements

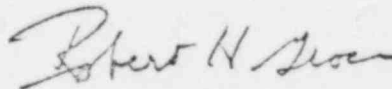
We have examined the facts upon which the staff has based its evaluation and agree that the facts are correct.

The electrical drawings requested as part of reference (b) are currently being reproduced in the form of aperture cards and will be submitted as soon as they are available.

We trust this information is acceptable to you; however, should you have any questions, please contact Mr. David A. Hansen of this office.

Very truly yours,

YANKEE ATOMIC ELECTRIC COMPANY



Robert H. Croce
Licensing Engineer

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