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Proposed Change No. 120
Supplement No. 1

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WYR 75-45

YANKEE ATOMIC ELECTRIC COMPANY



20 Turnpike Road Westborough, Massachusetts 01581

April 17, 1975

DL

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

Attention: Office of Nuclear Reactor Regulation

Reference: 1. License No. DPR-3 (Docket No. 50-29)
2. Proposed Change No. 120 submitted January 13, 1975
3. Letter from NRC dated March 19, 1975
4. Supplement No. 3 to Proposed Change No. 96
submitted March 20, 1972

Dear Sir:

Pursuant to Section 50.59 of the Commission's Rules and Regulations and your request for additional information regarding Reference 2, the Yankee Atomic Electric Company hereby submits the following Supplement No. 1 to Reference 2.

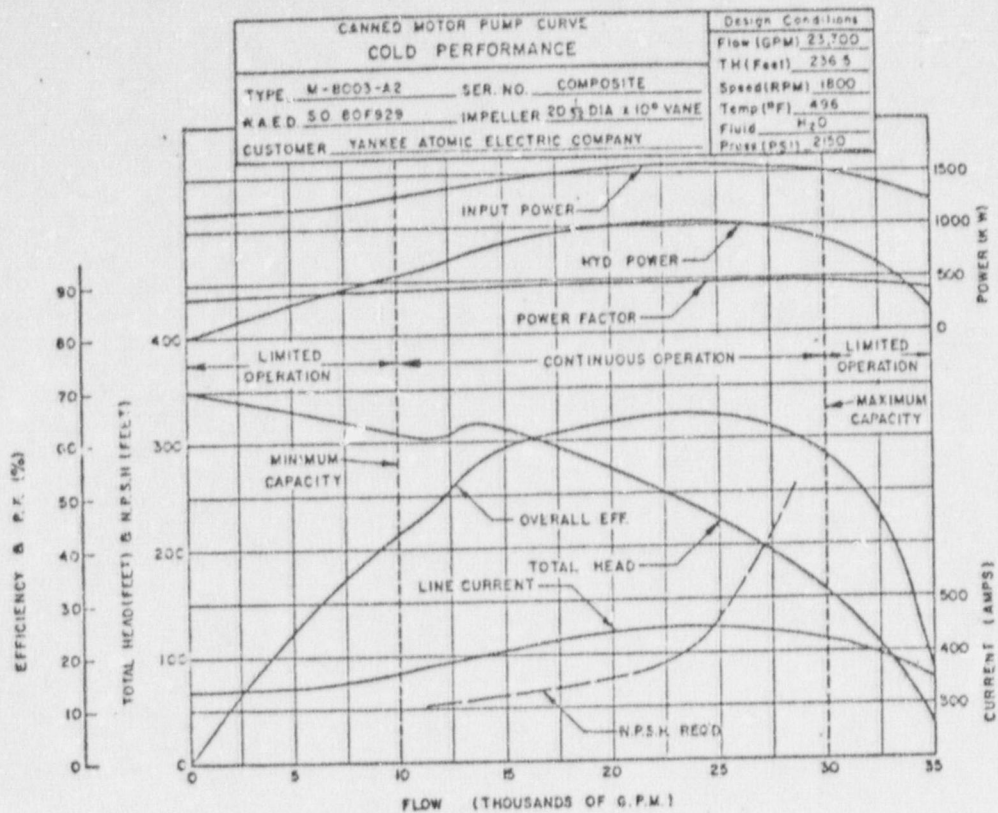
Your approval of Change No. 97 on April 14, 1972, was based on information submitted relative to the operation of the low main coolant flow trip using relays to monitor the electric current to each main coolant pump. The bases for the selection of the high and low current setpoints were given in Reference 4, Attachment B, "Additional Information on Proposed Instrumentation and Electrical System Revisions." The following is an excerpt from the answer to Question B.5 in Attachment B:

"The low main coolant flow scram is initiated by monitoring the current to each of the four main coolant pumps. When pump current is below normal current, a loss of flow due to loss of pump driving power supply is indicated; and when the current is above normal, a loss of flow is anticipated due to a pump mechanical seizure or a motor fault."

The low setpoint senses loss of pump driving power supply by sensing the decreasing current which occurs due to loss of power to the pump. The high setpoint will sense increasing pump current due to pump mechanical seizure or a motor fault before the locked rotor current of 2150 amperes is reached and before the motor protective relays operate. Therefore, the setpoint ampere values are not critical and must only detect high or low current indicative of loss of power supply or pump mechanical seizure. With this type of anticipatory trip, it is not necessary to correlate actual flow to pump current.

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FIG. 14—Cold Water Performance of Pump at 1800 RPM

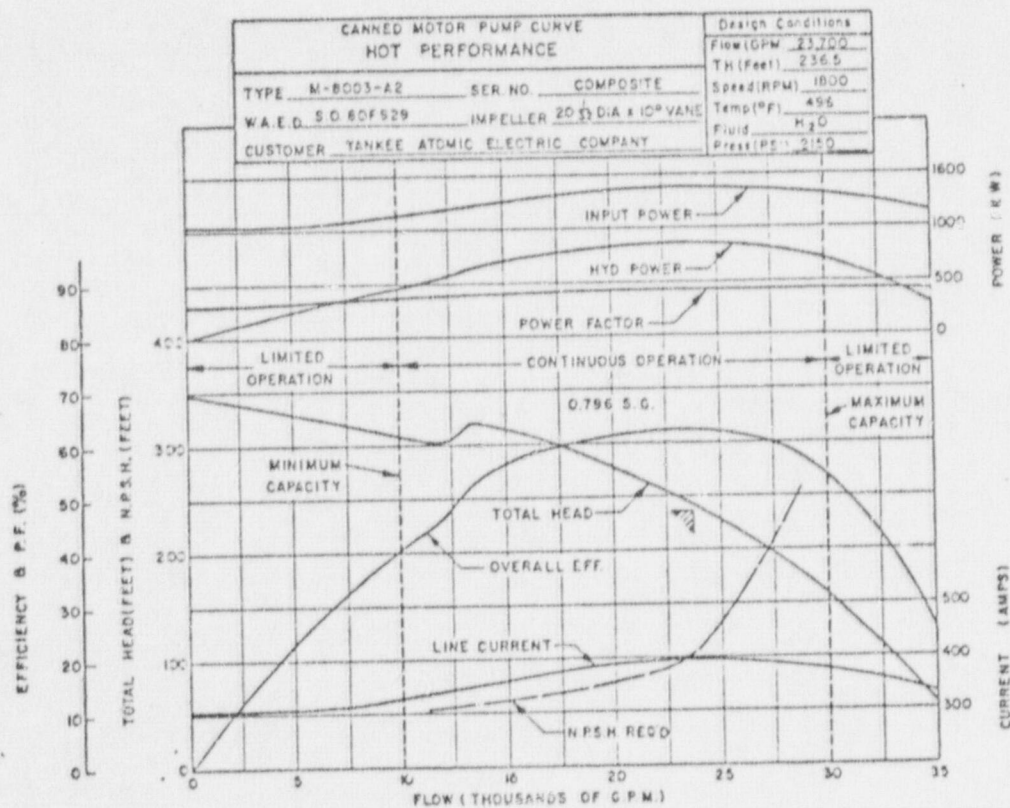


FIG. 15—Hot Water Performance of Pump at 1800 RPM

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(TEMPORARY FORM)**

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DESCRIPTION: Ltr notarized 4-17-75 requesting pursuant to Sect. 50.59 suppl #1 to Proposed Change No. 120 & trans the following:

ENCLOSURES: Supplement #1 to Proposed Change No. 120 re low main coolant flow trip using relays to monitor the electrical current to each ~~main~~ main coolant pump.

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PLANT NAME: Yankee Rowe

FOR ACTION/INFORMATION

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