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Docket No. 50-309

Mr. John H. Garrity, Senior Director
Nuclear Engineering and Licensing
Maine Yankee Atomic Power Company
83 Edison Drive
Augusta, Maine 04336

Dear Mr. Garrity:

SUBJECT: INSTRUMENTATION AND CONTROL CONCERNS FOR FEEDWATER
TRIP SYSTEM DESIGN - MAINE YANKEE

We are in the process of reviewing the design of Maine Yankee's feedwater trip system. During the course of this review, several concerns have been identified. The enclosed questions have been prepared to indicate the key areas of concern.

We suggest that you prepare a response to these concerns so that the review can continue. A meeting to discuss your response with the NRC staff should be arranged through the Maine Yankee Project Manager. While no submittal of written responses is requested at this time, the proposed meeting to discuss these matters should be arranged within the next 30 days.

Sincerely,

Original signed by:

Robert A. Clark, Chief
Operating Reactors Branch #3
Division of Licensing

Enclosure:
As stated

cc: See next page

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DATE	11/27/82	11/27/82	11/24/82				

Maine Yankee Atomic Power Company

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INSTRUMENTATION AND CONTROL CONCERNS
FOR MAINE YANKEE FEEDWATER
TRIP DESIGN

1. Two-out-of-four logic is used for the low pressure trips and main steamline isolation. The staff is concerned that:
 - (a) Adequate procedures and switch identification may not exist for testing the low pressure logic.
 - (b) Indication may not be provided for the bypasses used to prevent main steamline isolation and feedwater trip during the above testing.
 - (c) The bypasses used for the feedwater trips are not testable.
 - (d) Indication is not provided for assurance that the bypass/test switch contacts return to their normal positions after test.

2. Two solenoid valves are used for each main steamline isolation valve, auxiliary and main feedwater flow control valves, and main feedwater bypass control valve. The staff is concerned that:
 - (a) Manual closure capability is not provided for each solenoid valve.
 - (b) Only one train of automatic closure is provided for the main steamline isolation valves.

3. Low steam generator pressure trips the auxiliary feedwater pumps. Additionally, blocks and start permissives are provided for these pumps. The staff is concerned that:
 - (a) Redundant trips, blocks and start permissives are not provided.
 - (b) Adequate procedures and switch identification may not exist for testing the trips, blocks, and permissives in the AFW pump breaker control circuitry.
 - (c) Indication may not be provided for the test/bypass switches used to inhibit the pump trips during testing.
 - (d) Indication is not provided for assurance that the test/bypass switch contacts return to their normal positions after test.

4. Batteries are used to power the logic and solenoid valves for the feedwater trips. Since the same battery is used in both A and B trains, the staff is concerned that separation and single failure criteria may not be met.

Provide a discussion on the above concerns and any other comments relative to these items.