

August 3, 1989

Docket No. 50-309

Mr. C. D. Frizzle, President
Maine Yankee Atomic Power Company
83 Edison Drive
Augusta, Maine 04336

Dear Mr. Frizzle:

SUBJECT: 10 CFR 50.62 (ATWS RULE) REQUEST FOR ADDITIONAL
INFORMATION (TAC NO. 59110)

The ATWS rule (10 CFR 50.62), "Requirements for Reduction of Risk from Anticipated Transients Without Scram [ATWS] Events for Light-Water-Cooled Nuclear Power Plants" requires improvements in the design and operation of commercial nuclear power facilities to reduce the likelihood of failure to shutdown the reactor following anticipated transients and to mitigate the consequences of an ATWS event. Paragraph (c)(6) of the rule requires that information sufficient to demonstrate compliance with the requirements be submitted to the Office of Nuclear Reactor Regulation (NRR).

You provided information concerning implementation of the ATWS rule requirements at Maine Yankee by letter MN-89-63 dated May 18, 1989. The information contained in the submittal was discussed with Maine Yankee personnel by telecon on June 28, 1989. As a result of the telecon additional information is required to determine compliance with the Commission's regulations. Therefore, in order to continue our review, it is requested that you provide us the additional information delineated in the enclosure.

Sincerely,

/s/

Patrick M. Sears, Project Manager
Project Directorate 1-3
Division of Reactor Projects

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Enclosure:
Request for Additional Information

cc w/enclosure:
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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Sincerely,

A handwritten signature in cursive script that reads "Patrick M. Sears".

Patrick M. Sears, Project manager
Project Directorate 1-3
Division of Reactor Projects

Enclosure:
Request for Additional Information

cc w/enclosure:
See next page

Mr. C. D. Frizzle

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cc w/enclosure:

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ENCLOSURE

MAINE YANKEE

10 CFR 50.62 (ATWS RULE)

REQUEST FOR ADDITIONAL INFORMATION

TAC NO. 59110

A telephone conference call (telecon) was held on June 28, 1989 with Maine Yankee Atomic Power Company (MYAPCo), licensee for the Maine Yankee Atomic Power Station, for the purpose of discussing their submittal dated May 18, 1989 (Ref. 1). This submittal was in response to a staff request for additional information (RAI) forwarded to the licensee by letter dated August 11, 1988 (Ref. 2).

During the telecon, the response to the RAI was discussed as well as the eleven items of guidance contained in the "Statement of Consideration" as published in the Federal Register dated June 26, 1984 (Ref. 3). Also discussed were three other items which the staff considers important to the ATWS system design. The licensee clarified some of the information contained in the submittal and provided some new information as well.

During the telecon four items were identified that the staff feels require attention on behalf of the licensee and these items are:

1. Quality Assurance

The licensee should provide a commitment to incorporate the provisions of The NRC generic letter (GL) 85-06 into his QA program for the non-safety related ATWS equipment.

2. Safety Related Power Supply

The licensee should provide a common mode failure (CMF) analysis on any ATWS circuit and design that share power supplies with the reactor protection system (RPS). The analysis should demonstrate that power supply faults (e.g. overvoltage and undervoltage conditions, degraded frequencies, and overcurrent) will not compromise the reactor trip system (RTS) and the diverse emergency feedwater actuation system (DEFAS) equipment. This analysis should include consideration of alarms for early detection of degraded voltage and frequency conditions to allow time for the operators to take corrective action while the affected circuits/components are still capable of performing their intended functions. The diversity of the lower level power supplies (logic power supplies) between the RPS and the ATWS circuits should be shown.

3. Testability

The diverse scram system (DSS) and the DEFAS should have an overlapping end-to-end test capability that encompasses the input sensor through to the final actuated device. Information should be provided to demonstrate this test capability along with the procedures that are in place to perform these test during refueling outages.

4. Information Readout

Information should be provided to demonstrate that the status information received by the operator with respect to the ATWS mitigation system is generated directly by the ATWS circuits.

REFERENCES

1. Letter, G. D. Whittier (MYAPCo) to Director of Nuclear Reactor Regulation, U.S. NRC, "Implementation of Maine Yankee ATWS Prevention and Mitigation Systems," May 18, 1989.
2. Letter, R. H. Wessman (NRC) to J. Randazza, (MYAPCo), "10 CFR 50.62 (ATWS Rule) Review Request for Information," August 11, 1988.
3. Statement of Considerations, Federal Register, Vol. 49, No. 124, June 26, 1984.