

## UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555

## JAN 17 1977

Docket Nos.: 50-344, 50-213, 50-315, 50-244, 50-247, 50-286, 50-305, 50-266

50-301, 50-282, 50-306, 50-261, 50-295, 50-304, 50-206, 50-280

50-281, 50-250, (50-251), and 50-334

Memo to the File

Subject: SUMMARY OF MEETING HELD ON NOVEMBER 4, 1976, CONCERNING

PROPOSED MEASURES TO PREVENT REACTOR VESSEL OVERPRESSURIZATION

IN OPERATING WESTINGHOUSE (PWR) FACILITIES.

 Page 2 of the subject meeting summary, dated November 1, 1976, contained an error. Substitute the attached corrected page 2 in all copies of the meeting summary.

> Gary G. Zech, Project Manager Operating Reactors Brnach #1 Division of Operating Reactors

1. Credit of Operator Action - No credit can be taken for operator action until 10 minutes after the operator is aware that a pressure transient is in progress.

- 2. Single Failure Criteria The pressure protection system should be designed to protect the vessel given a single failure in addition to a failure that initiated the pressure transient. In this area, redundant or diverse pressure protection systems would be considered as meeting the single failure criteria.
- 3. Testability The equipment design should include some provision for testing on a schedule consistent with the frequency that the system is used for pressure protection.
- 4. Seismic Design and IEEE 279 Criteria Ideally, the pressure protection system should meet both seismic Category I and IEEE 279 criteria. The basic objective, however, is that the system should not be vulnerable to an event which both causes a pressure transient and causes a failure of equipment needed to terminate the transient.

Representatives of the task group of Westinghouse utilities formed to evaluate the problem of reactor vessel overpressurization provided a description of the steps they have taken to respond to the requirements set forth in our August 1976 letter. A summary was given of the various types of Thermal and mass input transients being considered, and it was indicated that a "bounding" analysis is being performed to consider the worst case situation for all Westinghouse plants. The preliminary results of the mass input analysis show that the pressurizer power relief valves have both the capacity and time response characteristics to limit the resultant pressure surges. The task group, however, indicated that a more detailed analysis would be necessary in the case of the pump-start or thermal type of transient before any similar determination could be made. The detailed plant specific analyses are not scheduled for completion for about six months. Since the power operated relief has evidently been selected by the licensees as the means to limit pressure transients, we urged that efforts be made to begin ordering the necessary equipment now rather than waiting 6 months for the plant specific analyses results. We also urged that the licensees concurrently investigate other factors such that installation times can be minimized. The licensees' task group agreed to look into these matters.