

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT NO. 3 NUCLEAR POWER PLANT

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September 10, 1979
IP-WDH-5578

Docket No. 50-286
License No. DPR-64

Mr. Boyce H. Grier, Director
Office of Inspection and Enforcement
Region I
U. S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, Pennsylvania 19406

I.E. Bulletin No. 79-05C and
79-06C

Dear Mr. Grier:

Enclosed is our detailed response to Items in Bulletin 79-05C and 79-06C.

Very truly yours,


J. P. Bayne
Resident Manager

WDH/rbb

Attachement

cc: Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Division of Reactor Operations Inspection
Washington, D. C. 20555

Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

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ATTACHMENT

Short-Term Actions

1. In the interim, until the design change required by the long-term actions of this Bulletin has been incorporated, institute the following actions at your facilities:
 - A. Upon reactor trip and initiation of HPI caused by low reactor coolant system pressure, immediately trip all operating RCPs.

RESPONSE

- A. It was determined that immediate tripping of the RCPs after a reactor trip and HPI initiation should not be accomplished unless the results of the Westinghouse LOCA analyses indicated that this was the best course of action. This completed analysis, WCAP-9600, which is referred to in Item 2, indicates that it is not required to trip the RCPs until the reactor coolant system pressure is reduced to 1250 psia.
- B. Provide two licensed operators in the control room at all times during operation to accomplish this action and other immediate and followup actions required during such an occurrence. For facilities with dual control rooms, a total of three licensed operators in the dual control room at all times meets the requirements of this Bulletin.

RESPONSE

- B. Present plant administrative procedures require two licensed operators to man the control room post during normal power operation.

2. Perform and submit a report of LOCA analyses for your plants for a range of small break sizes and a range of time lapses between reactor trip and pump trip. For each pair of values of the parameters, determine the peak cladding temperature (PCT) which results. The range of values for each parameter must be wide enough to assure that the maximum PCT or, if appropriate, the region containing PCTs greater than 2200 degrees F is identified.

RESPONSE

2. A series of Loss of Coolant Accident (LOCA) analyses for a range of break sizes and a range of time lapses between initiation of break and pump trip applicable to the 2, 3 and 4 loop plants has been performed by the Westinghouse Owners' Group. A report summarizing the results of the analysis of delayed Reactor Coolant Pump trip during small loss of coolant accidents for Westinghouse and NSSS, will be submitted to Mr. D. F. Ross by Mr. Cordell Reed on August 31, 1979. In the report, maximum PCT's for each break size considered and pump shutoff times have been provided. The report concludes that if the reactor coolant pumps are tripped prior to the reactor coolant system pressure reaching 1250 psia, the resulting peak clad temperatures are less than or equal to those reported in the FSAR. In addition, it is shown that there is a finite range of break sizes and RCP trip times in all cases 10 minutes or later which will result in PCT's in excess of 2200° F as calculated with conservative Appendix K models. The operator in any event would have at least 10 minutes to trip the RCP's following a small break LOCA, especially in light of the conservatism in the calculations. This is appropriate for manual rather than automatic action, based on the guidelines for termination of RCP operation presented in WCAP-9600.
3. Based on the analyses done under Item 2 above, develop new guidelines for operator action, for both LOCA and non-LOCA transients, that take into account the impact of RCP trip requirements. For Babcock & Wilcox designed reactors, such guidelines should include appropriate requirements to fill the steam generators to a higher level, following RCP trip, to promote natural circulation flow.

RESPONSE

3. The Westinghouse Owners' Group has developed guidelines which were submitted to the NRC in Section 6 and Appendix A of WCAP 9600. The analysis provided as the response to item 2 are consistent with the guidelines in WCAP 9600. All applicable procedures concerning tripping of RCP's at 1250 psia will be revised during the upcoming refueling outage beginning September 15, 1979.

4. Revise emergency procedures and train all licensed reactor operators and senior reactor operators based on the guidelines developed under Item 3 above.

RESPONSE

4. The Owners' Group effort to revise emergency procedures covers many issues, including operation of the Reactor Coolant Pumps. The action taken in response to Item 1 is sufficient as an interim measure and no immediate need exists for changing our emergency procedures to include the tripping of the Reactor Coolant Pumps. The expected schedule for revising the LOCA, steamline break and steam generator tube rupture emergency procedures is the following:

Mid-October: Guidelines which have been reviewed by the NRC will be provided to each utility. Appropriate utility personnel associated with writing procedures will meet with the Owners' Group Subcommittee on Procedures and Westinghouse to provide the background for revising their emergency procedures.

January 1, 1980: Plant specific procedures will be revised.

March 1, 1980: Revised procedures will be implemented and operators trained.

5. Provide analyses and develop guidelines and procedures related to inadequate core cooling (as discussed in Section 2.1.9 of NUREG-0578, "TMI 2 Lessons Learned Task Force Status Report and Short-Term Recommendations") and define the conditions under which a restart of the RCPs should be attempted.

RESPONSE

5. Analyses related to inadequate core cooling and definition of conditions under which a restart of the RCP's should be attempted will be performed. Resolution of the requirements for the analyses and an acceptable schedule for providing the analyses and guidelines and procedures resulting from the analyses will be arrived at between the Westinghouse Owners' Group and the NRC staff.

Long-Term Action

1. Propose and submit a design which will assure automatic tripping of the operating RCPs under all circumstances in which this action may be needed.

RESPONSE

As discussed in our response to short-term item 2, we do not believe that automatic tripping of the RCP's is a required function based on the analyses that have been performed and the guidelines that have been developed for manual RCP tripping. We propose that this item be discussed with the NRC staff following their review of the Owners' Group Submittal.