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AUTH.NAME AUTHOR AFFILIATION
MANGAN,C.V. Niagara Mohawk Power Corp.
RECIP.NAME RECIPIENT AFFILIATION
VASSALLO,D.B. Operating Reactors Branch 2

SUBJECT: Forwards response to 840404 ltr re mods to reduce challenges & failures of relief of valves. Operation of valves monitored & maintained per Tech Spec requirements & good maint practices.

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TITLE: OR Submittal: TMI Action Plan Rgmt NUREG-0737 & NUREG-0660

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NIAGARA MOHAWK

NIAGARA MOHAWK POWER CORPORATION/300 ERIE BOULEVARD WEST, SYRACUSE, N.Y. 13202/TELEPHONE (315) 474-1511

June 8, 1984

Director of Nuclear Reactor Regulation
Attention: Mr. Domenic B. Vassallo, Chief
Operating Reactors Branch No. 2
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: Nine Mile Point Unit 1
Docket No. 50-220
DPR-63

Dear Mr. Vassallo:

Attached is Niagara Mohawk's response to your letter dated April 4, 1984. This asks whether modifications have been made to reduce challenges to the Nine Mile Point Unit 1 relief valves.

Sincerely,

NIAGARA MOHAWK POWER CORPORATION

C. V. Mangan
Vice President
Nuclear Engineering and Licensing

JLB:bd
Attachment

A046
1/1

Niagara Mohawk Response

Niagara Mohawk's letter dated April 1, 1981 from Donald P. Dise to Darrell G. Eisenhut, previously responded to this subject. In that response, Niagara Mohawk used the results of the Boiling Water Reactor Owners Group analysis referenced in the Nuclear Regulatory Commission's position statement. Our letter stated that Dresser electromatic relief valves met the reliability targets outlined by the Nuclear Regulatory Commission. Specifically, the Nuclear Regulatory Commission stated that challenges of relief valves, based on Boiling Water Reactor experience, should be reduced substantially (by an order of magnitude). The Boiling Water Reactor Owners Group report concluded that the Boiling Water Reactor-2's had a stuck open relief valve frequency at least a factor of ten lower than the benchmark plant. On this basis, no modifications were considered necessary by Niagara Mohawk for Nine Mile Point Unit 1 at that time.

During the past three years, the operation of these valves has been monitored and they have been maintained in accordance with Technical Specification requirements and good maintenance practices. Successful experience continues, and there have been neither incidents of challenges nor stuck open events. Niagara Mohawk's understanding of other utilities' experience with Dresser electromatic relief valves is that they have observed the same satisfactory service. Therefore, no revisions are necessary and our previous position remains the same.

Further, in the process of making changes in accordance with the requirements of Appendix R to 10CFR50, some improvements to the control circuitry for the relief valves have been made. These modifications increase the redundancy involved and reduce the chances of inadvertent opening of the relief valves due to the potential effects of a fire. Therefore, the potential for inadvertent valve operation from other postulated events has been further reduced.

Response to Nuclear Regulatory Commission Letter Dated April 4, 1984 Regarding Modifications to Reduce Challenges and Failures of Relief Valves

Nuclear Regulatory Commission Position From Letter Dated April 4, 1984

By letter dated March 31, 1981 (BWROG-8134), the Boiling Water Reactor Owners Group submitted the results of a feasibility study and evaluation of various actions and modifications which might reduce the challenges and failures of relief valves to achieve the objectives of NUREG-0737, Item II.K.3.16. The study was generally endorsed by Boiling Water Reactor licensees. At the time, many licensees stated that more time was needed to evaluate the relative costs and benefits of the candidate modifications and actions outlined in the study.

Our evaluation of the Boiling Water Reactor Owners Group feasibility study is enclosed. Some system modifications are very complex in nature and do not provide maximum benefit to reduce relief valve challenges. The staff has considered the system modifications based on the maximum benefit, simplicity and their effectiveness to reduce relief valve challenges and failures significantly. We find the following modifications acceptable to reduce SRV challenges and failures:

(1) Low-Low Set Relief Logic System or Equivalent Manual Actions;

(2) Lower the reactor pressure vessel water level isolation setpoint for main steam isolation valve closure from Level 2 to Level 1;

(3) Increase safety/relief valve simmer margin; and

(4) Preventive Maintenance Program.

The implementation of these system modifications would reduce significantly, subsequent SRV actuations for plant transients, reactor isolations and improve overall SRV performance. The General Electric evaluation concerning maximum benefit available from such system modifications appears to be reasonable, and estimates a reduction in SRV challenges and failures by a factor of eight. These system modifications do not compromise relief valves operation or other systems performance.

In view of the time that has elapsed since issuance of the Boiling Water Reactor Owners Group study, you are requested to update your previous responses to Item II.K.3.16 taking into consideration the staff evaluation. Please advise us of:

(1) Which, if any, of the staff recommended modifications have been implemented,

(2) Which, if any, of the staff recommended modifications you propose to implement,

(3) Whether you have implemented or propose to implement any of the other modifications or actions discussed in NUREG-0737, Item II.K.3.16 or in the Boiling Water Reactor Owners Group report.