UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SUPPLEMENTAL SAFETY EVALUATION

REGARDING DETAILED CONTROL ROOM DESIGN REVIEW REASSESSMENT

NIAGARA MOHAWK POWER CORPORATION

NINE MILE POINT, UNIT 1

DOCKET NO. 50-220

1.0 INTRODUCTION

By letter dated January 30, 1987, Niagara Mohawk Power Corporation provided a supplemental report to the Detailed Control Room Design Review (DCRDR) final summary report for Nine Mile Point, Unit 1. By letter dated August 6, 1990, the NRC staff issued a safety evaluation for the Nine Mile Point, Unit 1, DCRDR. The staff concluded that the licensee had met the DCRDR requirements of Supplement 1 to NUREG-0737.

2.0 EVALUATION

2.1 HED EA-006: High Pressure Coolant Injection (HPCI) Override

In the 1987 supplemental report, the licensee's assessment of Human Engineering Deficiency (HED) EA-006 indicated that the capability to override HPCI should be incorporated in the control room. The licensee noted that this modification would eliminate the need to send an operator to the auxiliary control room to pull fuses FU8 and FU9 from cabinet 1S34 to override HPCI when executing emergency operating procedures (EOPs).

By letters dated February 3 and June 5, 1995, the licensee stated the following regarding its reassessment of HED EA-006:

(1) Initial procedural guidance to override HPCI required an operator to remove fuses FU8 and FU9 and perform additional operator actions related to two relay devices. Currently, only fuses FU8 and FU9 must be pulled. This remote operator action to override HPCI is only performed during an anticipated transient without scram (ATWS) scenario that would require lowering of vessel level to control reactor power. The probability of such an ATWS scenario is extremely small and Nine Mile Point, Unit 1, has experienced no events of this kind.

(2) Fuses FU8 and FU9 are clearly labelled and are contained in individual fuse boxes for easy removal.

(3) The training department has developed a "Job Performance Measure" (JPM) that is routinely reemphasized in operator training which is done on a two-year cycle. The JPM is quickly executed and no time constraint is specified in the EOPs.

(4) There are two alternate methods from the control room to prevent HPCI injection that are also covered in training.

(5) The modification is considered an enhancement and to be of no safety significance.

(6) No events have been initiated or exacerbated as a result of the remote override of HPCI.

(7) It takes about one to two minutes to remotely override HPCI.

On the basis of the above information, the staff finds that the licensee's reassessment of HED EA-006 is acceptable.

2.2 HED EA-007: Automatic Initiation of Containment Spray

In the 1987 supplemental report, the licensee stated that under certain accident conditions described in the EOPs, automatic initiation of containment spray could result in a severe pressure reduction transient in the drywell. Further, the licensee noted that (1) the applicable thermohydraulic conditions in the drywell and calculation techniques required further investigation, (2) the feature of the automatic containment spray is part of the licensing basis for the plant, and (3) the removal of this feature would require detailed analysis.

By letters dated February 3 and June 5, 1995, the licensee stated the following concerning its reassessment of HED EA-007:

(1) Automatic initiation of containment spray has no impact on the operator's ability to implement EOPs.

(2) Previously, Nine Mile Point, Unit 1, used a two-column EOP format and the direction to "place containment spray in pull-to-lock if containment spray has not initiated" was not easily identified. Currently, flowchart EOPs are used and this concern has been eliminated.

(3) The actions required to either prevent or stop automatic initiation of containment spray are to pull and rotate counter-clockwise the four containment spray pump switch handles located in close proximity to each other in the control room.

(4) No Nine Mile Point, Unit 1, events have been initiated or exacerbated as a result of the automatic initiation of containment spray.

On the basis of the above information, the staff finds that the licensee's reassessment of HED EA-007 is acceptable.

2.3 HED VER-028: Core Spray Throttle Capability

This HED involved incorporating throttling capability in the core spray isolation valves since the task analysis takes credit for the ability to throttle.

By letter dated June 5, 1995, the licensee stated that the corrective action for HED VER-028 was completed during the recent spring 1995 refueling outage. The staff finds that this issue is resolved.

3.0 CONCLUSION

The staff concludes that the licensee has satisfactorily resolved the DCRDR-related corrective actions for HED EA-006, HED EA-007, and HED VER-028.

Principal Contributor: Garmon West, Jr.

Date: July 10, 1995

July 10, 1995

Mr. B. Ralph Sylvia
Executive Vice President, Nuclear
Niagara Mohawk Power Corporation
Nine Mile Point Nuclear Station
P.O. Box 63
Lycoming, NY 13093

SUBJECT: NINE MILE POINT NUCLEAR STATION NO. 1 (NMP1), DETAILED CONTROL ROOM DESIGN REVIEW DEVIATIONS (TAC NO. M91570)

Dear Mr. Sylvia:

The purpose of this letter is to transmit our Safety Evaluation of your determination that no plant modifications are warranted for two Human Engineering Observations (HEOs) in your earlier Detailed Control Room Design Review (DCRDR). We have concluded that your evaluation is acceptable.

In a letter dated January 30, 1987, you identified two HEOs (EA-006 and EA-007) among many others as a result of your DCRDR. In subsequent letters dated February 3 and June 5, 1995, you indicated that no plant modifications were warranted for these two HEOs and provided your supporting evaluation and justification for this decision. In addition you stated that the corrective action for Human Engineering Deficiency (HED) VER-028 has been completed. The NRC staff has reviewed your evaluation and concluded that you have provided acceptable justification for your reassessment of EAs-006 and 007, and that you have satisfactorily resolved HED VER-028. Our Safety Evaluation is enclosed.

By this letter we are closing TAC NO. M91570.

Sincerely,

/s/ Ronald B. Eaton for:

Gordon E. Edison, Senior Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-220

Enclosure: Safety Evaluation

cc w/encl: See next page

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