

50-289

## NRC DISTRIBUTION PART 50 DOCKET MATERIAL

FILE NUMBER

TO:  Mr. R. W. Reid	FROM: Metropolitan Edison Company Reading, Pa. R. C. Arnold	DATE OF DOCUMENT 6/5/76
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## DESCRIPTION

Ltr. re conversations on 6/4/76 between their Mr. Grace & our Mr. Nelson concerning improper incorporation of fuel densification penalties into both their TMI-1 cycle 2 reload report & the resultant TMI-1 tech Spec.

(3-P)

Plant Name:

Three Mile Island #1

## ENCLOSURE

POOR ORIGINAL

ACTION REQUIRED

DO NOT REPLY

## FOR ACTION/INFORMATION

6/16/76

RJL

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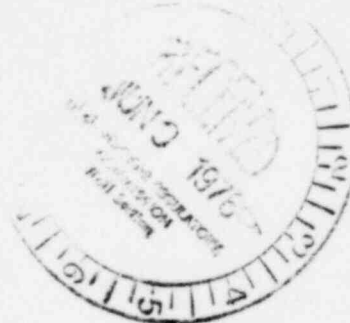


METROPOLITAN EDISON COMPANY SUBSIDIARY OF GENERAL PUBLIC UTILITIES CORPORATION

POST OFFICE BOX 542 READING, PENNSYLVANIA 19603

TELEPHONE 215 - 929-3601

June 5, 1976  
GQL 0821



Director of Nuclear Reactor Regulation  
Attn: Mr. R. W. Reid, Chief  
Operating Reactors Branch No. 4  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Dear Sir:

Three Mile Island Nuclear Station Unit 1 (TMI-1)  
Docket No. 50-289  
Operating License No. DPR-50

On June 4, 1976, conversations were conducted between our Mr. D. Grace and your Mr. C. Nelson concerning improper incorporation of fuel densification penalties into both our TMI-1 Cycle 2 Reload Report and the resultant TMI-1 Technical Specifications. In those conversations we stated that we are confident that we will be able to show that the effect of improperly incorporating the fuel densification penalties could be more than compensated for by our taking credit for elimination of a currently assumed vent valve penalty (eliminating this penalty would have the effect of increasing the analysis assumed flow through the reactor by 4.6%). Further, it was noted that the Nuclear Regulatory Commission (NRC), in a March 10, 1976 letter, states that the B&W report, "B&W Operating Experience of Reactor Internals Vent Valves," had been reviewed; that sufficient evidence had been presented to assure that the vent valves will remain closed during normal operation; and that the flow penalty could be eliminated from the analyses at the request of the affected utilities.

With the preceding discussion serving as background, the purpose of this letter is to (a) provide further discussion of why we are confident that elimination of the vent valve penalty will more than compensate for the effects of not having properly incorporated the fuel densification penalties, and (b) outline the corrective actions we intend to take to obtain final resolution of this issue.

#### Discussion

Proper incorporation of fuel densification penalties would affect two areas of the current TMI-1 Technical Specifications: the variable low pressure trip set point, and the flux/flow trip set point. Extracts of a report from

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our NSSS vendor concerning these two subject areas follows:

1. Variable low pressure trip set point for Cycle 2 operation is based on the four pump open vent valve pressure-temperature limit curve presented in figure 8.3 of the Reload Report. The corresponding limit curve, based on closed vent valves and incorporating the revised densification penalty, will be approximately 30F less restrictive (maximum allowable  $T_0$  will be 30F higher at a given pressure). Thus, no tech spec trip change is required when the vent valve penalty is eliminated.
2. The flux/flow trip set point for Cycle 2 (1.08) is based on the one pump coastdown analysis. When the revised densification penalty is incorporated and the vent valve penalty is eliminated, the thermal-hydraulic limiting flux/flow set point is greater than 1.12 (this limit must be at least 1.11 to justify the tech spec set point of 1.08). It can also be shown that a T-H limit of 1.11 on the flux/flow set point can be justified by taking credit for one-half of the vent valve penalty.

#### Corrective Actions

It should first be noted that we have determined this issue to constitute a 14-day reportable event pursuant to the requirements of TMI-1 Technical Specification 6.9.2A.(8); that a verbal 24-hour notification has been communicated to the Nuclear Regulatory Commission Inspection and Enforcement Region 1 office (telecopy confirmation to follow); and that further details will be provided in the final 14-day report. With regard to the affected areas of the TMI-1 Technical Specifications (i.e., figures 2.1-1 and 2.1-3), please be advised that:

- a. Surveillance of the reactor vent valves was conducted during the recently completed refueling outage, and the results indicate that the valves do indeed remain shut during operation,
- b. We anticipate being able to submit by July 7, 1976,\* a TMI-1 Technical Specification Change Request, which request--when implemented--will:
  1. Incorporate into our Technical Specifications the mutually offsetting effects of proper incorporation of fuel densification penalties, and elimination of the vent valve penalty (we anticipate that this will result in less restrictive operating limits than those presently existing), and

\*NOTE: We expect to have complete documentation available for the required safety committee reviews by June 24, 1976, and anticipate being able to schedule and complete these reviews in time for an orderly July 7, 1976, submittal to the NRC.

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2. Include surveillance requirements for the vent valves in accordance with previous NRC guidance, and
- c. Until NRC issuance of the subject Technical Specification Change Request, we will continue to operate within the present Technical Specification operating limits, which limits we have reason to believe are more restrictive than those referenced in (b) above.

With this submittal, we trust that we have served to adequately document the status of the subject situation and the corrective actions that we intend to pursue. Should you, however, have any additional questions or concerns, please contact me.

Sincerely,

~~Signed - R. C. Arnold~~

R. C. Arnold  
Vice President

RCA:DNG:eg

cc: Mr. C. Nelson  
Nuclear Regulatory Commission

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