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May 5, 1980
E&L-2364

Mr. Harold R. Denton
Director of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Denton:

SUBJECT: Three Mile Island Nuclear Station Unit 1 (TMI-1)
Docket Number 50-289
Operating License Number DPR-50
Comments on NUREG-0667

Enclosed are comments on the twenty-two recommendations made by the B&W Reactor Transient Response Task Force in NUREG-0667. These comments were presented orally at a meeting with the Task Force on April 23, 1980. As a general comment, we believe that these recommendations should be part of an overall action plan and schedule which establishes integrated priorities for accomplishing these and other actions. The schedules should reflect the risk reduction potential of each item with respect to all other items and recognize the extent of manpower and materials necessary and available to accomplish them.

Very truly yours,

A handwritten signature in cursive script that reads 'P. R. Clark'.

P. R. Clark
Vice President - Nuclear Activities

PRC:CWS:bjo

Enclosure

cc: R. A. Capra
D. DiIanni
R. L. Tedesco
H. Silver

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SE 1/1

1. Comment

Met-Ed has committed to upgrade the TMI-1 Emergency Feedwater (EFW) System to meet the requirements of NUREG-0578, Section 2.1.7.a. The TMI-1 Restart Report, Supplement 1, Part 3, Response to Question 4 provides a conceptual description and best effort schedule for upgrading this system. In order to achieve a coordinated system, it is important that the EFW System be upgraded as a package rather than on a piecemeal basis. Therefore, Met-Ed plans to accomplish resolution of Recommendations 2 and 4 as part of the overall upgrading. We encourage the NRC Staff not to force upgrading on a piecemeal basis.

It should be noted that it may not be necessary to require full upgrading to SRP 10.4.9 in order to achieve high reliability for the EFW system. In some instances, it may be necessary to exclude reliable equipment and choose less reliable equipment in order to meet an arbitrary schedule or to purchase "qualified" equipment. This is particularly true for control valves where a less desirable on/off rather than modulating control may be selected in order to meet some special qualification requirement. We request that the NRC Staff consider this in developing schedules and requirements for all plants.

2. Comment

See comments on Recommendation No. 1 above.

3. Comment

Not applicable to TMI-1.

4. Comment

See comments on Recommendation No. 1 above.

5. Comment

Met-Ed is addressing this recommendation as described in our responses to Crystal River incident (Met-Ed letters dated March 13 and March 17, 1980). In addition, we understand "gross failures" in control systems to be loss of power supplies or failures that may cause opening of the PORV or other similar major disturbances.

6. Comment

Met-Ed agrees with the philosophy of establishing a set of principle parameters to be used by the operator to respond to accidents and major transients. It should be recognized that the existing instruments at many plants, including TMI-1, are already of high quality and are extremely reliable (once the power source is improved). Adding an additional safety grade set of instruments to the control room would not significantly improve reliability and would serve to further complicate the control room. The need to make these instruments safety grade should, therefore, be considered on a case-by-case basis.

7. Comment

Met-Ed has already improved the usability of the incore thermocouples by providing computer readout trending and saturation margin computation. Adding another input to the Saturation Indicator is unnecessary and undesirable.

8. Comment

This recommendation is overly prescriptive. Other methods to isolate containment vent and purge are available, and are more reliable than high radiation signals. The NRC should recommend criteria to be met rather than engineer fixes.

The TMI-1 vent and purge is isolated on all reactor trips (manual or automatic) at 4 psi Reactor Building Pressure and by control grade high radiation signal. We believe this system is more reliable and would meet the NRC Staff's criteria.

9. Comment

We concur with this recommendation; however, this recommendation and Recommendations 11 and 19 should be considered as a package. Recommendation 19 should be pursued first and then Recommendations 9 and 11 can be resolved logically.

10. Comment

We believe the best approach to this recommendation would be to conduct a review of operating experience on a plant-by-plant basis and make improvements as indicated to reduce the number of transients and reactor trips and to eliminate other abnormal performance. Experience could also be used from other B&W plants to the extent that it is applicable. Sensitivity studies would not be necessary if experience were continuously reviewed for areas for improvement considering that the performance criteria of Recommendation 19, if met, would provide acceptable performance.

11. Comment

See comments on Recommendations 9 and 10.

12. Comment

This recommendation should be considered in light of the similar recommendations of NUREG-0654. A technician on duty would be unlikely to be able to identify and correct a malfunction rapidly, unless, it was a result of I&C testing or maintenance activities. Therefore, having a technician available on short notice (but not necessarily on shift), except during maintenance activities, would provide adequate coverage.

13. Comment

Operator training on the CR-3 event and ICS/NNI Emergency Procedures will be complete before restart of TMI-1.

14. Comment

It is unlikely that B&W can develop guidelines on a generic basis for its plants, since there are so many differences between the plants' ICS/NNI systems. In addition, TMI-1 and other B&W plants have, or soon will have, the necessary procedures in place.

15. Comment

At least one week of simulator training will be accomplished as part of the normal requalification program for the TMI-1 operators.

16. Comment

NRC Staff action.

17. Comment

NRC Staff action.

18. Comment

NRC Staff action.

19. Comment

We are interested in participating in the development of the performance criteria. We believe that the NRC Staff should give this high priority.

Also see comments on Recommendations 9 and 10.

20. Comment

We concur with this recommendation.

21. Comment

We have studied the effect of EFW injection, both high and low, in the Steam Generator using our TMI-1 RETRAN model. We have concluded that plant performance is unaffected by the EFW injection point, except that natural circulation is reduced by bottom injection. We understand that B&W has reached the same conclusion using their computer model. Based on this, this recommendation need not, and should not, be further pursued so that other important studies can be conducted.

22. Comment

NRC Staff action.