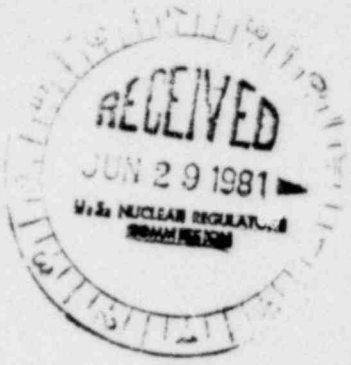
Met-Ed / GPU

Metropolitan Edison Company
Post Office Box 480
Middletown, Pennsylvania 17057

Writer's Direct Dial Number

June 24, 1981
L1L 147



Office of Nuclear Reactor Regulation
Attn: D. G. Eisenhut, Director
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Sir:

Three Mile Island Nuclear Station, Unit 1 (TMI-1)
Operating License No. DPR-50
Docket No. 50-289
Emergency Procedures and Training for Station Blackout Event

This letter is in response to your letter of February 25, 1981, concerning our capability to mitigate a station blackout event.

As requested, we have reviewed current plant operations, emergency procedures, and operator training. Attached please find specific responses to those items listed in your referenced letter. With respect to operator training we submit the following information.

Operator training for station blackout events was conducted during the simulator requalification training which took place during January and February 1981. To ensure that future training adequately covers a station blackout event classroom training will include the items listed in your letter. To be of utmost value this training should be performed as near to the scheduled simulator training as possible. The simulator training is scheduled for January and February 1982. Therefore, the station blackout event training will take place between October 26 and December 4, 1981. Although this schedule does not fall within that suggested in your letter, we consider it adequate due to present plant conditions.

Although a total loss of AC power is not a design basis accident for TMI-1, adequate capability exists, as shown per this response, to mitigate such an event, and operator training will be enhanced prior to 1982.

Sincerely,

H. D. Hukill
Director, TMI-1

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HDH:DGM:lma

Attachment

cc: B. H. Grier B. J. Snyder H. Silver
J. F. Stolz D. DiIanni L. Barrett

F

Item a:

The actions necessary and equipment available to maintain the reactor coolant inventory and heat removal with only DC power available, including consideration of the unavailability of auxiliary systems such as ventilation and component cooling.

Response to Item a:

EP 1202-2A provides guidance to the operator for a loss of offsite power condition with failure of both on site diesel generators. This procedure provides instructions for minimizing loss of RCS inventory and for maintaining RCS heat removal through the steam generators. EP 1202-2A is being revised to provide compensating action for the loss of ventilation.

Item b:

The estimated time available to restore AC power and its basis.

Response to Item b:

No detailed evaluation is available to indicate the time at which inadequate core cooling would occur. However, the Restart Report Section 8 indicates that greater than 30 minutes are available prior to inadequate core cooling. Since the turbine driven emergency feed pump is available, core cooling can be maintained as long as natural circulation can be maintained. When natural circulation is lost, the procedure requires steam generator level to be increased to 95% to aid in cooling.

Item c:

The action for restoring offsite AC power in the event of a loss of the grid.

Response to Item c:

Dispatching and Switching procedures have been developed to provide power to the TMI-230KV substation from combustion turbines in the event of an area blackout. Those procedures currently provide preferential restoration of power to TMI-2. The same procedures would apply to TMI-1 with the exception of switching in the TMI-230KV substation.

Item d:

The actions for restoring offsite AC power when its loss is due to postulated onsite equipment failures.

Response to Item d:

EP 1202-2A addresses resetting lockouts and attempting to restore offsite power. Since there are two auxiliary transformers either of which can provide power to the safeguards buses, loss of both is unlikely.

Item e:

The actions necessary to restore emergency onsite AC power. The actions required to restart diesel generators should include consideration of loading sequence and the unavailability of AC power.

Response to Item e:

EP 1202-2A provides instructions for checking key components on the diesel generators and actions for resetting or correcting or overriding inoperable functions. The diesel generators would be manually loaded per 1202-2 or would automatically block load if an ES signal is present.

Item f:

Consideration of the availability of emergency lighting, and any actions required to provide such lighting, in equipment areas where operator or maintenance actions may be necessary.

Response to Item f:

Self contained DC lighting has been installed for the Fire Protection Audit (License Amendment 44). This lighting will provide ingress and egress to the areas where operations would be required. Hand held supplemental lighting would be required to perform many of the functions.

Item g:

Precautions to prevent equipment damage during the return to normal operating conditions following restoration of AC power. For example, the limitations and operating sequence requirements which must be followed to restart the reactor coolant pumps following an extended loss of seal injection water should be considered in the recovery procedures.

Response to Item g:

Although other procedures address restarting an RC Pump following loss of seal injection and seal cooling the required steps will be incorporated into EP 1202-2A. The procedure will also address restart of other necessary equipment.