Dear Sir:

Three Mile Island Nuclear Station, Unit 2 (TMI-2)
Operating License No. DPR-73
Docket No. 50-320

Emergency Procedures and Training for Station Blackout Events


The above referenced letter requested licensees to evaluate emergency procedures and training for station blackout events. GPU Nuclear has done so, and the following describes the evaluation performed.

A station blackout event at TMI-2 in its present post-accident condition would not result in a significant reduction in the ability to maintain the reactor coolant inventory or the ability to remove decay heat from the core. The only system that would be affected by the loss of AC power, and is currently being used in conjunction with the Reactor Coolant System, is the Standby Pressure Control (SPC) System. A station blackout event would result in a loss of instrument air to the SPC System as a result of the loss of AC power to the compressors that supply air to the instrument air system.

However, the SPC System itself is essentially passive in that the only function that is served by the instrument air system is the control of the pressure regulators. The loss of instrument air to the pressure regulators would eventually result in the decay of pressure in the Reactor Coolant System and the loss of the Reactor Coolant Inventory Makeup.

Currently, there is a small amount of leakage from the Reactor Coolant System (less than 0.1 gpm). Loss of the ability to make up inventory lost through this leakage will not result in any threat to core coverage. Since the quantity of leakage is small, a significant time period is available to recover AC power and consequently recover inventory (makeup) control. For example, a 0.1 gpm leakage for four (4) hours would result in a loss of twenty-four (24) gallons of RCS inventory which is very small when compared to the total RCS inventory of approximately 88,000 gallons. Since the core decay heat generation rate is so low (less than
40 kw) and the loss to ambient cooling mode has been proven effective, core and RCS cooling is not jeopardized.

Since the consequences of a station blackout at TMI-2 are minor because of the unique shutdown status of the unit, and because the time available for recovery is substantial, no specific instructions to cope with this event have been instituted at TMI-2 beyond those instructions available in existing emergency procedures for station blackout.

Sincerely,

B. K. Kanga
Director, TMI-2

BKK/SWS/jep

CC: L. H. Barrett, Deputy Program Director, TMI Program Office