



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

AMENDMENT NO. 42 TO FACILITY OPERATING LICENSE NO. DPR-50

METROPOLITAN EDISON COMPANY  
JERSEY CENTRAL POWER AND LIGHT COMPANY  
PENNSYLVANIA ELECTRIC COMPANY

THREE MILE ISLAND NUCLEAR STATION, UNIT NO. 1

DOCKET NO. 50-289

Introduction

By letter dated February 3, 1978, as supplemented by letters dated April 18, and July 7, 1978, Metropolitan Edison Company (Met Ed) requested changes to the Technical Specifications appended to Facility Operating License No. DPR-50 for Three Mile Island Nuclear Station, Unit No. 1 (TMI-1). The proposed amendment would change the method of surveillance testing of the reactor internal vent valves.

Evaluation

The change proposed by Met Ed would specify a vertical force of 400 lbs. to be used in the surveillance testing of the reactor internal vent valves. Met Ed states this force is equivalent to an opening differential pressure for the reactor internal vent valves of 1.0 psid. The present Technical Specification requires manual actuation of the vent valves to verify that the valve begins to open from the fully closed position with a force equivalent to  $\leq 15$  psid and is fully open with a force equivalent to  $\leq 30$  psid.

Met Ed has shown that: (1) the required pressure differential necessary to hold the vent valves full open is no more than 1.0 psid; (2) a force of  $\leq 400$  lbs. applied vertically upward is the force equivalent of a pressure differential of 1.0 psid; (3) a time lag of 0.2 seconds will occur between onset of the limiting Loss of Cooling Accident (LOCA) and attainment of the full open position of the valve if the 1.0 psid force were required; and (4) the 0.2 second time delay has

only a small effect (i.e., <3°F) on the peak cladding temperature (PCT) during the limiting LOCA. The present calculated PCT is 2146°F. The additional 3°F temperature rise will increase the PCT to 2149°F which does not cause the limiting LOCA PCT to exceed any of the 10 CFR 50.46 criteria, nor does this change affect which LOCA break is limiting.

We have reviewed the calculations which demonstrate the equivalence of a 400 lb. force applied vertically to the valve and a pressure differential of 1.0 psid. Based on this review, the information supplied by Met Ed, and the continued surveillance requirements on the reactor internal vent valves, we find this change to be acceptable.

#### Environmental Consideration

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

#### Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: August 16, 1978