

February 17, 1977

Docket No.: 50-289

Metropolitan Edison Company
ATTN: Mr. R. C. Arnold
Vice President - Generation
P.O. Box 542
Reading, Pennsylvania 19603

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Gentlemen:

By letter dated October 24, 1976, you transmitted a non-routine 30 day report No. 75-08, relating to excessive ambient temperatures in the Three Mile Island Unit No. 1 Reactor Building.

We have been reviewing the condition of sustained high temperature in the reactor building and your conclusions. In order for us to complete our review, we need the additional information as indicated in the enclosure.

Your responses to the questions are requested within 30 days of receipt of this letter.

Sincerely,

Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Operating Reactors

Enclosure:
Request for Additional
Information

cc w/enclosure:
See next page

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OFFICE ▶	ORB#4:DOR	ORB#4:DOR	C-ORB#4:DOR			
SURNAME ▶	GVissing:dn	GZwetzig	RWReid			
DATE ▶	2/16/77	2/17/77	2/17/77			

Metropolitan Edison Company

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U. S. Environmental Protection Agency
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ATTN: EIS COORDINATOR
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Philadelphia, Pennsylvania 19106

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REQUEST FOR ADDITIONAL INFORMATION

THREE MILE ISLAND UNIT NO. 1

DOCKET NO. 50-289

1. The temperature gradients during normal operation of the plant are in general slowly increasing functions of time. Therefore, the additional creep of concrete has usually the time to relieve part of the temperature stresses. Please indicate therefore:
 - a. whether the effect of the increase of concrete creep due to additional thermal stresses has been considered in the analysis,
 - b. whether the Young's modulus of elasticity for concrete E_c has been adjusted to take care of this effect.
2. Indicate with precision what load combinations have been considered in the analysis, especially whether tornado loads, seismic loads, etc. have been assumed to act simultaneously with the thermal gradients.
3. Indicate the effect of higher operating temperature on the liner. We are particularly concerned about a possible bulging effect on the liner particularly at areas of penetrations, both during normal operation and immediately after a postulated LOCA. Therefore, please provide your analyses displaying stresses and deformations and the results of your inspections during the high temperature conditions.