

AUG 19 1977

Docket No. 50-289

Metropolitan Edison Company  
ATTN: Mr. J. G. Herbein  
Vice President  
P. O. Box 542  
Reading, Pennsylvania 19603

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Gentlemen:

By letter dated December 12, 1975 you requested amendment of Appendix B to Operating License No. DPR-50 for Three Mile Island Nuclear Generating Station, Unit No. 1 (TMI-1). One of the changes requested would revise Section 2.3.1 to provide specific concentration limits for noble gases dissolved in liquid effluents.

Based upon the review completed to date, we conclude that we cannot grant the limits requested because we do not agree that the drinking water pathway is limiting. We further conclude, however, that based on the more conservative submersion exposure model, we probably will be able to approve a maximum concentration limit of  $4 \times 10^{-5}$  uCi/ml for dissolved noble gases, provided one remaining consideration is resolved. This consideration relates to the effect of this change on offsite doses due to liquid effluents - particularly within the context of Appendix I to 10 CFR 50.

Specifically, Appendix B Specification 2.3.1.b places a limit on the total curies released per calendar quarter in liquid effluents, but excludes tritium and noble gases. Appendix I, on the other hand, states design objectives in terms of an all inclusive annual radiation exposure dose, without exclusion of any isotopes. Accordingly, in order to approve a change in the allowable discharge concentration for noble gases in liquid effluents, it must be demonstrated in addition to other considerations, that the change will not significantly increase the annual dose due to liquid effluents, from all pathways of exposure received by persons in unrestricted areas.

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Therefore, in order for us to conclude our review, you should supply information demonstrating that based on expected discharges of liquid effluents, increasing the dissolved gas concentration limit from its present value to  $4 \times 10^{-5}$  uCi/ml will not significantly increase the dose due to liquid effluents received by persons in unrestricted areas.

You are requested to advise us within 20 days of receipt of this letter of your schedule for submitting the above information.

Sincerely,

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

cc: See next page

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OFFICE	ORB#4:DOR	C-ORB#4:DOR			
SURNAME	GZwetzig:dn	RWReid			
DATE	8/19/77	8/19/77			

Metropolitan Edison Company

cc: G. F. Trowbridge, Esquire  
Shaw, Pittman, Potts & Trowbridge  
1800 M Street, N. W.  
Washington, D. C. 20036

GPU Service Corporation  
Richard W. Heward, Project Manager  
Thomas M. Crimmins, Jr., Safety  
and Licensing Manager  
260 Cherry Hill Road  
Parsippany, New Jersey 07054

Pennsylvania Electric Company  
Mr. R. W. Conrad  
Vice President, Generation  
1001 Broad Street  
Johnstown, Pennsylvania 15907

Mr. Weldon B. Arehart, Chairman  
Board of Supervisors of Londonderry  
Township  
RFD#1, Geyers Church Road  
Middletown, Pennsylvania 17057

Miss Mary V. Southard, Chairman  
Citizens for a Safe Environment  
P. O. Box 405  
Harrisburg, Pennsylvania 17108

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Box 1601 (Education Building)  
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