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Docket No. 50-289

Metropolitan Edison Company ATTN: Mr. R. C. Arnold

Vice President - Generation

P. O. Box 542

Reading, Pennsylvania 19603

RWReid RIngram DBridges OELD OI&E (3) DEisenhut TAbernathy

ORB4 Rdg KGoller TCarter

Gentlemen:

We have reviewed your correspondence dated October 13, and November 12, 1975 regarding the Three Mile Island Unit 1 Reactor Building Spray System. However, in order for us to complete this review it will be necessary for you to provide additional description regarding the spray system and its performance characteristics.

The specific information requested is discussed in detail in the enclosure to this letter.

You are requested to provide this information within 30 days of receipt of this letter.

Please provide your response with three signed originals and 37 additional copies.

Sincerely,

Original signed by

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

Enclosure: Request for Additional Information

cc:

See next page

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OFFICE	ORB4 M	ORB4 CLAN	ORB4	
SURNAME	RIngram	DBridges:mt	RWReid	
DATE	1/14/76	1/20/76	1/ /9/76	

cc:

G. F. Trowbridge, Esquire
Shaw, Pittman, Pouts, Trowbridge & Maddan
Barr Building
910 17th Street, N. W.
Washington, D. C. 20006

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. Archart, Chairman Board of Supervisors of Londonberry Township 2148 Foxiana Road Middletown, Pennsylvania 17057

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

Government Publications Section State Library of Pennsylvania Box 1601 (Education Building) Harrisburg, Pennsylvania 17126 REQUEST FOR ADDITIONAL INFORMATION

THREE MILE ISLAND, UNIT 1

DOCKET NO. 50-289

Discuss how the minimum static pressure at the points where the chemical tank discharge lines join the lines leading from the BWST to the spray pumps was determined. Provide system drawings showing the elevation of the chemical tanks, BWST, and connecting piping.

Describe and justify the methods used for determining the static pressure head due to the liquid in the BWST, the aspiration force in the spray lines at the chemical tank discharge points, and the friction forces involved. Since free vortex formation in the BWST could affect the static pressure head, provide the following information:

- a. Provide the liquid heights in the BWST at the end of the injection phase.
- b. Provide the maximum liquid velocity in the suction lines and the suction line diameters.
- c. Describe any anti-vortex formation devices that are provided in the BWST. Provide an analysis of the effectiveness of these devices and include available empirical data which demonstrates that they will be effective in preventing vortex formation.