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ON: (Must Be Unclassified)
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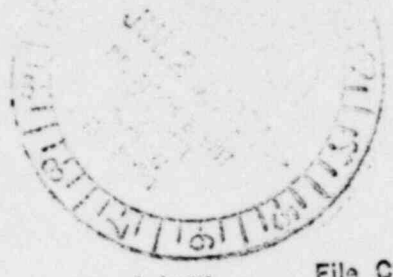
27 July 1971



Regulatory File Cy.

Mr. Edson G. Case, Director
Division of Reactor Standards
U.S. Atomic Energy Commission
Washington, D.C. 20545

Re: Contract No. AT(49-5)-2667
Three Mile Island Nuclear Station -- Unit 1
Metropolitan-Edison Company and
Jersey Central Power and Light Company
AEC Docket No. 50-289

Dear Mr. Case:

Upon the conclusion of our review of the Preliminary Safety Analysis Report and Amendments for the Three Mile Island Nuclear Station -- Unit 1, Dr. W. J. Hall and I have prepared our final report, which is transmitted to you herewith.

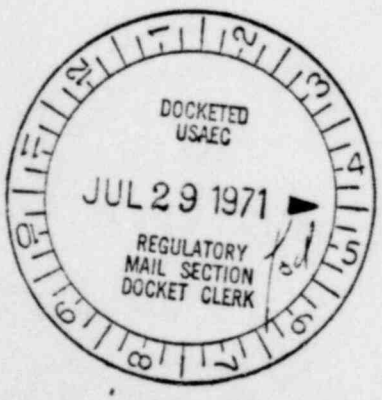
Sincerely yours,

N. M. Newmark

N. M. Newmark

pg
Enclosure

cc: W. J. Hall (2)



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27 July 1971

FINAL SAFETY ANALYSIS REPORT

FOR

THREE MILE ISLAND NUCLEAR STATION -- UNIT 1

METROPOLITAN-EDISON COMPANY AND JERSEY CENTRAL POWER AND LIGHT COMPANY

AEC Docket No. 50-289

by

N. M. Newmark and W. J. Hall

After our review of the FSAR, including Amendments through No. 20, we believe that the design of the Three Mile Island Nuclear Station, Unit 1, can be considered adequate in terms of provision for safe shutdown for a Design Basis Earthquake of 0.12g maximum horizontal ground acceleration, and capable otherwise of withstanding the effects of an Operating Basis Earthquake of half this intensity.

Our review was based on consideration, among other things, of the design criteria and results of analyses presented by the applicant for Reactor Internals, Reactor Buildings, Buried Piping, Other Nuclear Piping and Equipment, and Critical Items of Control and Instrumentation.

The Aircraft Impact Design described by the applicant was also taken into account in our review.

We believe the procedures used and the designs developed are in accord with the state of the art. We conclude that the design incorporates an acceptable range of margins of safety for the hazards considered.

1589 186

N. M. Newmark