

Roger S. Boyd, Assistant Director
Division of Reactor Licensing

November 27, 1967

THRU : Charles G. Long, Chief, RPB-3, DRL Original Signed by
Denwood F. Ross, RPB-3, DRL Charles G. Long

**MEETING WITH METROPOLITAN EDISON COMPANY, NOVEMBER 22, 1967, ON FLOOD
STAGE CALCULATIONS, DOCKET NO. 50-289**

Attendees

<u>DRL</u>	<u>USGS</u>	<u>Met-Ed</u>	<u>GAI</u>
C. G. Long	E. L. Meyer	G. F. Bierman	R. H. McLamore
D. F. Ross	J. Davidian		H. T. Newton
I. Spickler	D. Anderson		

Newton and McLamore of GAI started the meeting by reviewing the PSAR material. Photographs of the 1936 flood were presented. A large plan map of the Three-Mile Island vicinity was presented. The map had 1936 USGS measurements, other 1936 measurements, 1964 measurements, and design flood computations. GAI described the calculational methods. Some differences in reference data between USGS and GAI were expressed. GAI had isopleths constructed across the Susquehanna depicting the computer prediction of the 1936 flood. The predictions extended from the York Haven Dam, lower part, above Three-Mile Island to the upper end of Hill Island. Predictions were ~295 feet at the lower end of Three-Mile Island to ~297 feet at the upper end.

The modified GAI calculations now show fairly good agreement with USGS measurements at the west shore (Goldsboro) directly opposite the middle of Three-Mile Island. Photographs taken (and left with DRL) at the measurement point on the afternoon of March 19, 1936, verify the documented numbers very well. Two measurements on the east shore above Three-Mile Island tend to verify the predictions. However, Meyer had a point (unpublished) indicating 3 feet in excess of the GAI observation, and 2 feet in excess of prediction. No real difference is expressed, due to the inherent error in these type of calculations.

GAI stated their calculational methods correlated well with the 1964 flood.

GAI then presented a separate map on the design flood computations. The new dike elevation is 307 feet. Water elevation around the upper end of Three-Mile Island is 303-304 feet. The excess height (3-4 feet) is for wave action. Plant elevation is 304 feet. Four feet of freeboard is considered a requirement for wave action.

DRL and consultants discussed. Relative merits of asking for more computations was considered. We then gave the applicant two choices:

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1. Calculate water differentials due to the bend in the river that might have caused height differential, or
2. Raise the dike 2 feet (in wave-action areas).

The applicant stated that he favored No. 2.

We also notified the applicant that the permanent access bridge to the island must remain open during the design flood.

The applicant may subsequently recalculate and request a lowering of the dike due to improved calculations.

cc:

- P. A. Morris
- J. F. Newell
- I. Spickler
- C. Long
- B. Grimes

Distribution
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