



UNITED STATES
 ATOMIC ENERGY COMMISSION
 WASHINGTON, D.C. 20545

SEARCHED
 FILED

Docket No. 50-320

DISTRIBUTION:

- AEC PDR
- Formal
- Suppl. -
- REG Rdg.
- DRL Rdg.
- RPB-2 Rdg.
- Orig: RRPowell
- C. K. Beck
- M. M. Mann
- R. S. Boyd
- L. Kornblith (2)
- H. Steele (2)
- bcc: J. R. Buchanan, ORNL

Jersey Central Power & Light Company
 Madison Avenue at Punch Bowl Road
 Morristown, New Jersey 07960

Attention: John E. Logan
 Vice President

Gentlemen:

This refers to your application, dated April 29, 1968, for a construction permit and facility license which would authorize construction and operation of a nuclear power reactor to be located adjacent to Unit No. 1 in Lacey Township, Ocean County, New Jersey. The nuclear power facility is designated as Oyster Creek Unit No. 2. Our review of the hydrological aspects indicates that additional information is necessary to permit evaluation of the maximum possible hurricane flood height at this site. As you know, Amendment 22 of the Oyster Creek Unit 1 Safety Analysis Report, dated October 16, 1967, page 4-J-1 commits you to submit a report and additional analysis to support the Probable Maximum Hurricane flood height for the Oyster Creek site.

Because this matter is common for Units 1 and 2, the additional information requested in Attachment A should be submitted to cover both units at the Oyster Creek site.

Sincerely yours,

ORIGINAL SIGNED BY
 Peter A. Morris

Peter A. Morris, Director
 Division of Reactor Licensing

Enclosure:
 Request for Information

cc: James V. Neely
 Jersey Central Power & Light Co.

George F. Trowbridge, Esquire
 Shaw, Pittman, Potts, Trowbridge & Madden

48-330

DRL:RP
 RRPowell/
 6/18/68

DRL:RP
 RLTedesco
 6/ /68

DRL:RT
 SLevine
 6/ /68

DRL:RP
 RSBoyd
 6/24/68

DRL
 PAMorris
 6/25/68

7904180015

A

ATTACHMENT A

REQUEST FOR INFORMATION

OYSTER CREEK NUCLEAR PLANT UNIT 2

DOCKET NO. 50-320

Hydrology

1. All surge height elevations associated with the Probable Maximum Hurricane (PMH) should be evaluated based on the PMH parameters derived by the Hydrometeorological Branch of the U. S. Weather Bureau. These parameters, appropriate for the Oyster Creek site, are defined in "Meteorologica' Characteristics of the Probable Maximum Hurricane Atlantic and Gulf Coasts of the United States" Interior Report, U. S. Department of Commerce, ESSA, Weather Bureau Hydrometeorological Branch, dated May 1968.
2. Computations involving variation of the PMH parameters, namely radius to maximum winds (R) and forward speed of translation (T) should be carried out in order to establish that the hypothetical storm selected produces the maximum surge height at the site. The results of this investigation should be fully discussed in your response.
3. The maximum open coast surge height should be evaluated and described using methods given in either "Shore Protection, Planning and Design" Technical Report No. 4, U. S. Army Coastal Engineering Research Center, Third Edition, 1966 or "Estimation of Hurricane Surge Hydrographs," Journal of the Waterways and Harbors Division, ASCE, Vol. 94 No. W.W. 2, Proc. Paper 5945, May 1968.
4. It is not apparent from the text of the Unit 2 PSAR that an additional pile up of water within the bay was considered at the mainland shore in the vicinity of the site due to wind stress acting on the free water surface of the bay. This water pile up would give an additional setup of the surge. This effect should be considered in your evaluation using the method of computing the bay surge coupled to the open coast surge presented in "Numerical Model for Storm Surges in Galveston Bay," by Reid, R. O. and Bodine, B. R., Journal of the Waterways and Harbors Division, ASCE, Vol. 94 No. W.W. 1, Proc. Paper 5805, February 1968.

5. What is the additional water surface rise in the bay system due to direct rainfall and upland rainfall runoff? The quantity of rainfall and duration would be that associated with the Probable Maximum Hurricane.
6. Describe the results of your analysis and methods used to support the extreme low tide elevation of -3.4 feet MSL as stated in the Unit 2 PSAR.
7. Information is necessary to support the 1 foot wave runup at the site since it is not apparent that wind waves would decay to the magnitude indicated in section 2.4.3.1e of the Unit 2 PSAR.