

FEDERAL POWER COMMISSION
WASHINGTON, D.C. 20426

IN REPLY REFER TO:

50-219

September 12, 1973

Mr. Daniel R. Muller
Assistant Director for
Environmental Projects
Directorate of Licensing
U. S. Atomic Energy Commission
Washington, D. C. 20545



Dear Mr. Muller:

This is in response to your letter dated July 9, 1973, requesting comments on the AEC Draft Environmental Statement relating to the proposed issuance of a full-term operating license to the Jersey Central Power and Light Company for continued operation of the Oyster Creek Nuclear Generating Station (Docket 50-219).

The following comments are made in compliance with the National Environmental Policy Act of 1969, and the April 23, 1971, Guidelines of the Council on Environmental Quality, and review the need for the capacity of the 620-megawatt Oyster Creek Unit with regard to the adequacy and reliability of the affected bulk power systems and related matters.

In preparation of these comments, the Federal Power Commission's Bureau of Power staff has considered the AEC Draft Environmental Statement; the Applicant's Environmental Report and Amendments thereto; related reports made in response to the Commission's Statement of Policy on Reliability and Adequacy of Electric Service (Docket No. R-362); and the staff's analysis of these documents together with related information from other FPC reports. The staff generally bases its evaluation of the need for a specific bulk power facility upon long-term considerations as well as upon the load-supply situation for the peak load period immediately following the availability of the new facility. It should be noted that the useful life of the Oyster Creek Nuclear Generating Station is expected to be 30 years or more, dating from 1969. During that period, the unit will make a significant contribution to the adequacy of power supply in the Applicant's service area.

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The 620-megawatt Oyster Creek Nuclear Generating Station has been in commercial operation since December 1969, under a provisional operating license. In 1971 the station generated 3.8 billion kilowatt-hours of electric energy.

The Applicant, the New Jersey Power and Light Company, the Metropolitan Edison Company, and the Pennsylvania Electric Company are operating subsidiaries of the General Public Utilities Corporation (GPU), an electric utility holding company. The four utility companies and a fifth subsidiary company, the General Public Utilities Service Company, comprise the GPU system. The four operating subsidiaries are members of the Mid-Atlantic Area Council (MAAC) and of the Pennsylvania-New Jersey-Maryland Interconnection (PJM), which coordinate the planning and operation of their members' bulk power facilities. The PJM systems' franchised service areas include all or parts of the states of Pennsylvania, New Jersey, Maryland, Delaware, and the District of Columbia. Because of the integration of the Applicant's system in the GPU System and the PJM system, an analysis of the effect of the capacity of the Oyster Creek unit on both of these systems is appropriate.

The GPU system is a winter-peaking system with minor seasonal diversity, while the PJM system is a summer-peaking system. The combined loads of the Applicant and the New Jersey Power and Light Company reflect an annual rate of growth during the 1966-1972 period, based on historic data, of approximately 11.1 percent. Projected loads to 1980 show a minor increase, resulting in an annual rate of growth of load of 11.4 percent for the 14-year period 1966-1980. When the combined generating capability of the two New Jersey companies is correlated with their projected loads, the resulting reserve margins for the period 1973-1977 vary from 3.1 to 8.2 percent of load responsibility, with the capacity of the Oyster Creek Unit available. Without the capacity of the unit, these two systems would not be able to meet their combined projected loads.

The Applicant files an annual Power System Statement (FPC Form No. 12) with this Commission covering the GPU Integrated System, in which peak loads are projected four years in advance. The 1972 actual GPU System peak load and the projections are tabulated below:

<u>YEAR</u>	<u>PEAK LOAD, MW</u>	<u>ANNUAL INCREASE %</u>
1972 (Actual)	4,881	--
1973 (Projected)	5,354	9.69
1974 (Projected)	5,781	7.98
1975 (Projected)	6,235	7.85
1976 (Projected)	6,724	7.84
	Average	8.34

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The average annual load growth of 8.34% shown above if continued would lead to a peak load of about 9,264 MW by 1980. From 1973 through 1980, if Oyster Creek No. 1 should be unavailable, GPU reserves would be well below the PJM 20% criterion except in 1978 and 1979. Failure of construction efforts to have new units installed on the presently-planned schedule would cause further deterioration of reserves and of system reliability.


Table 8.4, page 8-11, of the Draft Environmental Statement should be updated using later information equivalent to that contained in MAAC's Report dated April 1, 1973 and submitted under FPC's Order 383-2. This report indicates reduced projections of regional installed capacity and system loads which result in lower projected reserve margins for the MAAC area than those indicated in Table 8.4. The planned reserve for the MAAC system is anticipated to exceed 20 percent of peak load in 1974. However, delays of the type experienced currently in bringing many large new units into commercial operation could adversely affect the reliability of area systems until the 1977-1978 period when the MAAC system reserves are forecast to exceed 25 percent. At least until that time, the capacity of the Oyster Creek unit will be needed to maintain the level of reserves in the MAAC region. During the period to 1985 the retirement of older fossil generating units will be a major force in reducing system reserves.

The final environmental statement should include a statement discounting consideration of geothermal energy as an alternative due to lack of known geothermal resources in the State of New Jersey.

The discussion of transmission lines in the Draft Environmental Statement is adequate.

The Bureau of Power staff concludes that the Oyster Creek Nuclear Generating Station is needed to meet the projected loads on the Applicants' system and provide adequate reserve capacity to meet regional reliability standards.

Very truly yours,


E. A. Phillips
Chief, Bureau of Power