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Jersey Central Power & Light Company

MADISON AVENUE AT PUNCH BOWL ROAD • MORRISTOWN, N. J. 07960 • 201-539-6111

MEMBER OF THE General Public Utilities Corporation GPU ELECTRIC POWER COMPANIES SYSTEM

August 6, 1974

Mr. William H. Regan, Jr., Chief
Environmental Projects Branch #4
Directorate of Licensing
Office of Regulation
U.S. Atomic Energy Commission
Washington, DC 20545

Dear Mr. Regan:

SUBJECT: OYSTER CREEK NUCLEAR GENERATING STATION
DOCKET NO. 50 219
ALTERNATIVE COOLING SYSTEMS

As requested in your July 10, 1974 letter, we have prepared updated cost figures for the condenser cooling water system alternatives discussed in Section 8.3.4 of the Oyster Creek Environmental Report. These figures are presented in the attachment to this letter and reflect our current preliminary design efforts as well as normal price escalations.

Members of your Staff have been informed verbally that these estimates are preliminary in nature and thus are subject to change as our efforts in this area develop more fully. On this basis, we will attempt to keep you informed of any major modifications to the data presented herein.

Very truly yours,

Ivan R. Finfrock, Jr.
Vice President

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OYSTER CREEK NUCLEAR GENERATING STATION

ESTIMATED COSTS OF ALTERNATIVE COOLING SYSTEMS

A. Natural Draft Cooling Tower with Saltwater Makeup

The updated cost estimates which are provided herein reflect a single natural draft cooling tower over 400 feet high, circular in all horizontal cross sections, and hyperbolic in vertical cross sections as discussed in Section 8.3.6 of the Oyster Creek Environmental Report. These figures reflect the latest considerations made with respect to design for interface with the existing plant condenser systems.

Estimated Construction Costs (1974 Dollars)	
Direct cost	$ 24,350,000
Engineering, design & construction mgmt. costs	3,000,000
Indirect costs	7,500,000
Power replacement cost	1,040,000
TOTAL	$ 35,890,000
Estimated Annual Operating Costs (1974 Dollars)	$ 695,000

B. Spray Pond with Saltwater Makeup

Estimated Construction Costs (1974 Dollars)	
Direct cost	$ 23,700,000
Engineering, design & construction mgmt. costs	3,000,000
Indirect costs	7,800,000
Power replacement cost	1,300,000
TOTAL	$ 35,800,000
Estimated Annual Operating Costs (1974 Dollars)	$ 570,000

C. Ocean Discharge System (Oyster Creek only)

In the evaluation of alternative cooling methods for Oyster Creek Unit 1, Section 8.3.8 of the Environmental Report states that the estimated cost for the Ocean Discharge System was arbitrarily charged to the Oyster Creek and Forked River plants on the basis that both units would utilize the system. The base price chargeable against Oyster Creek is shown as $40,500,000 based on 1971 dollars.

This assignment of funds was made arbitrarily. A reevaluation of this section reveals that incorrect conclusions regarding the cost-benefit analysis may be reached due to this cost division. The cost-benefit analysis should consider the cost of an Ocean Discharge System for the Oyster Creek facility alone rather than a split cost apportionment.

For Oyster Creek alone, a pipeline having a diameter of 10 feet would be required instead of the 16 foot diameter pipe for the combined units. The cost of this Ocean Discharge System for Oyster Creek alone is estimated below rather than the previously stated $40,500,000. This should be used for the cost chargeable to the Oyster Creek facility in the economic evaluations of alternative cooling methods.

Estimated Construction Costs (1974 Dollars)	
Direct cost	$ 60,900,000
Engineering, design & construction mgmt. costs	8,600,000
Indirect costs	18,800,000
Power replacement cost	294,000
TOTAL	$ 88,594,000
Estimated Annual Operating Cost (1974 Dollars)	$ 672,000

D. Ocean Intake-Discharge System (Oyster Creek and Forked River)

An Ocean Intake-Ocean Discharge System for the combined Oyster Creek and Forked River facilities would consist of two 12 foot diameter suction pipes and one 15 foot diameter discharge pipe. The cost of constructing this system is as estimated below.

Estimated Construction Costs (1974 Dollars)	
Direct cost	$152,000,000
Engineering, design & construction mgmt. costs	18,000,000
Indirect costs	50,000,000
Power replacement cost	1,100,000
TOTAL	$221,000,000
Estimated Annual Operating Cost (1974 Dollars)	$ 2,400,000