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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Appeal Board

In the Matter of)
)
LONG ISLAND LIGHTING COMPANY)
and)
NEW YORK STATE ELECTRIC &)
GAS CORPORATION)
)
(Jamesport Nuclear Power Station,)
Units 1 and 2))

Docket Nos. 50-516
50-517 G

SUPPLEMENT TO ORAL ARGUMENT

During the oral argument in this proceeding on October 19, 1978, the Applicants agreed (1) to provide certain § 149-b documents to the Board and other parties (Tr. at 117, 119), (2) to indicate whether Dr. J. Douglas Glaeser's report "was based on material only recently obtained . . . or discovered from LILCO" (Tr. at 133), and (3) to comment further on the "charts" advanced for the first time by Suffolk County (SC) during the oral argument (Tr. at 158-59, 162-63).

I Section 149-b Documents

The relevant material was mailed to the Board and parties early this month. See letter and attachments from R. E. Plaskon to Jerome E. Sharfman et al., Nov. 1, 1978.



II. Glaeser Report

Regarding when the LILCO data used by Dr. Glaeser became available, the Jamesport Corps of Engineers Application was filed in May 1976. During that month, all Jamesport beach erosion and comparison studies completed by the LILCO Survey Division were delivered to the Corps. The existence of these studies was indicated in the Applicants' written testimony in this proceeding, prefiled during the summer of 1976, and during the November 12, 1976 hearing day. See written testimony of Cordaro, following Tr. 3590, at 7; Tr. 3607-08.

LILCO's ongoing beach erosion studies compile beach and offshore profiles and sieve analyses of sediment samples taken at selected locations; and LILCO's comparison studies plot shoreline changes over time against a March 1974 baseline, including volume changes between profiles. A list of the studies delivered to the Corps in May 1976 follows:

<u>Beach Erosion Study</u>	<u>Comparison Study</u>
March 1974	
July 1974 ^{1/}	March 1974 - July 1974
Oct. 1974 ^{1/}	March 1974 - October 1974
Dec. 1974	March 1974 - December 1974
April 1975	March 1974 - April 1975

Dr. Glaeser's report, entitled "Effects of Jetties on Coastal Erosion at Jamesport Nuclear Power Station" and dated

^{1/}Sieve analysis included.

December 1977, could have been produced any time between May 1976 and the close of the NRC hearings in June 1977 so far as LILCO data available at the Corps were concerned. More specifically, Glaeser's report contains introductory descriptions of coastal processes, analyses of available data, and interpretations of the potential impact of jetties at the Jamesport site. Glaeser's conclusions are drawn from work that may be categorized as follows: a sand budget analysis, a bluff retreat analysis, interpretation of sieve analysis results (at the beach, intertidal zone and offshore), a qualitative assessment of jetty influences, and an analysis of borehole data from the excavation site for the proposed intake channel.

For his sand budget analysis, Dr. Glaeser used the following LILCO comparison studies: those of March 1974 - July 1974, March 1974 - October 1974, March 1974 - December 1974, and March 1974 - October 1975. All of these studies were available at the Corps in May 1976 except for the March 1974 - October 1975 comparison study, which was transmitted to the Corps on November 1, 1977. But, as already noted, a March 1974 - April 1975 comparison study was available at the Corps in May 1976, though Dr. Glaeser chose not to use it. However, not only could this omitted study have been used in Glaeser's analysis, it would also have been more appropriate to do so rather than to rely on the March 1974 - October 1975 comparison study, since generally accepted practice is to make comparisons from spring to spring or fall to fall to avoid the distortion introduced by seasonal changes.

For his bluff retreat analysis, Dr. Glaeser used the March 1974 - April 1975 comparison study. As stated above, this was available in May 1976. He used the sieve analyses of July 1974 and October 1974 in analyzing sediment samples at beach, intertidal and offshore locations. These sieve analyses were also available in May 1976. Aerial photographs taken between 1966 and 1974 were used in his qualitative assessment of jetty influences. His report lists these photographs and the sources from which they may be obtained by the public.

Dr. Glaeser's analysis of borehole data from the intake site did use data that were not transmitted to the Corps until July 27, 1977. But this particular analysis represents a minor portion of Glaeser's report. Moreover, his concern in this portion was with the volume of silt, clay, sand and gravel to be excavated. These quantities were specified in the May 1976 Corps Application.

In sum, the vast majority of the LILCO data used by Dr. Glaeser were available over a year prior to the June 1977 close of the record in this proceeding. The additional LILCO data submitted to the Corps after the close of the record, and used by Glaeser, had no material bearing on his report.

III. SC "Charts"

It appears that there are eight SC "charts" with accompanying comments. Charts 1A, 1B, 3 and 4 are in black and white, while charts 1, 2 and a second 3 and 4 are in color. SC has also

submitted a 5-page "summary of charts," dealing with those in color as well as a 2-page transmittal letter dated October 27, 1978.

Black and white charts 1A, 1B and colored charts 1-3 manipulate, in one fashion or another, peak load forecasts prepared by the Applicants in 1977. These forecasts, however, were not the ones ultimately relied upon by the Licensing Board in its Partial Initial Decision. That decision came down after... and took into account, forecast revisions made by the Applicants early in 1978. See Long Island Lighting Co. (Jamesport Nuclear Power Station, Units 1 and 2), LBP-78-17, 7 NRC 826, 925-27 (1978). Thus, no useful appellate purpose is served by SC's 1977-based charts, and none would be served by our quarreling with them, except as their flaws are common to SC's 1978-based arguments.

As to the latter, even if the LILCO-NYSE&G exchange of power posited by SC were a realistic option, which it is not, that option would still result in a deficit for NYSE&G during the winter of 1988-89 and for LILCO during the summer of 1989. This is indicated by the following table, which applies SC's apparent methodology to the 1978 forecasts. That methodology has the flaw noted on pages 7-8 below.

	Winter 1988-89			Summer 1989		
	LILCO	NYSE&G	Combined	LILCO	NYSE&G	Combined
Total Controlled Sources ^{2/}	4840	3480	8320	4840	3480	8320
1978 Peak Forecasts	3460	3840	7300	4230	2930	7160
Required Capability (peak plus 18% reserve)	4082	4531	8613	4991	3457	8448
Excess or (Deficit)	758	(1051)	(293)	(151) ^{3/}	23	(128) ^{4/}

SC's black and white charts 3 and 4 do, in fact, seem to show deficits for LILCO and NYSE&G in 1988-90. Since Jamesport Unit 1 is now scheduled to go on line in July 1988,^{5/} that is, in time for NYSE&G's 1988-89 winter peak and for the whole of

^{2/} For the data shown in this table, see ER Amendment 7 at Q7-2, -4; 1978 149-b Report, Vol. 1, at 168, 190.

^{3/} This deficit may well be 114 MWe greater, or 265 MWe. The 151 MWe deficit shown in the table assumes that LILCO's 114 MWe Far Rockaway Unit 4 remains on line in 1989. As note 1 to ER Amendment 7 at Q7-2 indicates:

In reality, however, it is anticipated that Far Rockaway Unit 4 will be retired about 1980, as a result of pure economics. Because this unit is a single-unit station, it has unusually high operating costs. Far Rockaway is also in New York City, which charges a sales tax (compensating use tax) of 4% on fuel oil, making this unit's No. 6 oil the most expensive used on LILCO's system. Further, if Far Rockaway were to be kept in service, LILCO would have to spend roughly two million dollars to meet federal and state water quality requirements.

^{4/} This deficit may well be 242 MWe. See note 3 above.

^{5/} ER Amendment 7 at Q6-1.

LILCO's 1989 summer season, SC appears to have acknowledged the obvious: Jamesport will be needed to meet LILCO-NYSE&G deficits even if the two companies were to exchange power as SC suggests.

It is also well to be clear that SC's suggested power exchange is not realistic. First, this option depends upon each company's being willing to satisfy its need for inexpensive baseload power by buying expensive peak power from the other. That would not make economic sense, an acute defect in this era of rising utility rates. Economic infeasibility aside, nor is it credible that mechanically delicate peak load units could be kept running a sufficient number of hours to meet baseload demands, or that national policy would be well served by operating LILCO's oil-fired peaking units to the maximum extent physically possible.^{6/}

Second, SC has exaggerated the excess power that is even theoretically available for export by LILCO and NYSE&G. This excess consists only of generating capacity beyond that necessary to provide an 18% reserve over the companies' combined annual peaks, not an 18% reserve over the union of one company's annual peak and the other's offseason peak, as SC would have it, e.g., in colored charts 2-3. Taking into account the ratings of electric utility generators in New York State, their scheduled outage

^{6/}As to this paragraph, see generally, e.g., written testimony of Gundersen, following Tr. 6438, at 3; Tr. 6461, 6465, 7351-52; Long Island Lighting Co., supra, 7 NRC at 916 (¶ 253); Applicants' Brief Opposing Exceptions at 24-25 & n.26 (Aug. 14, 1978).

for maintenance, the probability of their unavailability for other reasons and utility load characteristics, the New York Power Pool attempts to ensure a reliable supply of electricity in the state by maintaining at least a 20% reserve above the coincident peaks of the Pool's various members. To that end, each Pool member must maintain throughout the year installed capacity equal to at least 118% of its annual peak. The resulting Pool-wide diversity -- a function of summer and winter peaking companies as well as of the precise times at which individual peaks occur -- is great enough so that each system's 18% reserve above peak produces the necessary Pool-wide margin. See App. Ex. 17B, Vol. 5, at App. B; 1978 149-b Report, Vol. 1, at 333; Applicants' Brief Opposing Exceptions at 23 n.23 (Aug. 14, 1978).^{7/}

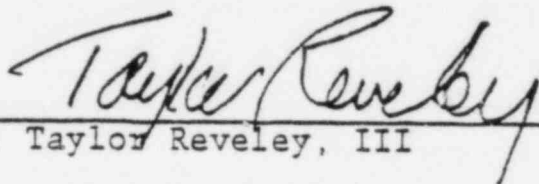
Finally, it is worth note that SC declined to advance its power-exchange option until the appellate stage of this proceeding. SC filed written "need for power" testimony during the hearings, thereafter served 575 pages of proposed findings of

^{7/} SC also exaggerates the availability of excess power by ignoring transmission realities in New York State. It is not the case, as SC apparently assumes, that NYSE&G could readily send power south to LILCO during the summer. Fifty percent of the state's demand for electricity exists in the New York City-Long Island area. This demand is most acute in the summer when both Consolidated Edison and LILCO experience their annual peak demands. The great bulk of the low cost generating capacity in the state, on the other hand, is not located in this area but rather to its west and north. Thus the flow of power in New York State is from north and west to south, over already overburdened transmission lines. SC's power swap, to the extent that it involves further north to south movement, especially during the summer, could not be accommodated without expensive additions to the state's transmission system. See, e.g., 1978 149-b Report, Vol. 1, at 115, 168; written testimony of Madsen on the costs of siting Jamesport upstate, following Tr. 7322, passim; Applicants' Brief Opposing Exceptions at 50-53 (Aug. 14, 1978).

fact and conclusions of law, and subsequently presented 60 pages of argument in the wake of the Applicants' 1978 forecast revisions. At no point in these pages did SC advance its swap option. SC has offered no excuse for this default. None is apparent. The option is inherently simplistic, and it relies on no "newly discovered" evidence. The fact that SC has waited until now to advance it is a testament to its lack of merit.

Respectfully submitted,

LONG ISLAND LIGHTING COMPANY



W. Taylor Reveley, III

Hunton & Williams
P. O. Box 1535
Richmond, Virginia 23212

DATED: November 9, 1978

CERTIFICATE OF SERVICE

I hereby certify that copies of SUPPLEMENT TO ORAL ARGUMENT were served upon the following by first-class mail, postage prepaid, on November 9, 1978:

Jerome E. Sharfman, Chairman
Atomic Safety and Licensing
Appeal Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Richard S. Salzman, Esq.
Atomic Safety and Licensing
Appeal Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dr. W. Reed Johnson
Atomic Safety and Licensing
Appeal Board
U.S. Nuclear Regulatory
Commission
Washington, D.C. 20555

Sheldon J. Wolfe, Esq.
Atomic Safety and Licensing
Board Panel
U.S. Nuclear Regulatory
Commission
Washington, D.C. 20555

Mr. Ralph S. Decker
Route 1, Box 190D
Cambridge, Maryland 21613

Dr. E. Leonard Cheatum
Route #3, Box 350A
Watkinsville, Georgia 30677

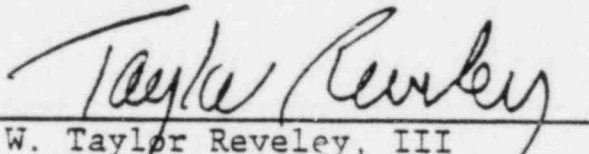
U.S. Nuclear Regulatory Commission
Office of the Secretary
Washington, D.C. 20555

William J. Olmstead, Esq.
Bernard M. Bordenick, Esq.
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Irving Like, Esq.
Reilly, Like & Schneider
200 West Main Street
Babylon, New York 11702

Joseph C. Gramer, Esq.
425 Broadhollow Road
Melville, New York 11746

Mrs. Jean H. Tiedke
Mrs. Shirley Bachrach
Box 1103
Southold, New York 11971


W. Taylor Reveley, III
Hunton & Williams
707 East Main Street
P. O. Box 1535
Richmond, Virginia 23212

DATED: November 9, 1978