UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Michael C. Farrar, Chairman
Dr. John H. Buck
Dr. Lawrence R. Quarles

In the Matter of	)	
CONSOLIDATED EDISON COMPANY OF NEW YORK, INC. AND POWER AUTHORITY OF THE STATE OF NEW YORK	)	Docket Nos. 50-3 50-247 50-286
(Indian Point Station, Units 1, 2 and 3)	)	

September 6, 1979

Supplemental opinion of Dr. Buck and Dr. Quarles, in response to the August 3, 1979 dissenting opinion of Mr. Farrar:

At the Commission's direction,[1/] we conducted an extended evidentiary hearing on the seismic and geological aspects of the Indian Point nuclear reactor site located near Peekskill, New York. On the basis of the evidence adduced at that hearing, we rendered a decision in which we found, inter alia, (1) that the safe shutdown earthquake (SSE) for the Indian Point site had a maximum intensity of VII; (2) that a value of

1/ CLI-75-8, 2 NRC 173 (1975).

0.15g was appropriately assigned to the maximum vibratory ground motion (acceleration) which might result from such an earthquake; and (3) that no need existed to require the licensees to install an expanded microseismic monitoring network. ALAB-436, 6 NRC 547, 624 (1977). Mr. Farrar noted a partial dissent (id. at 625-29), which was recently supplemented by a full opinion.

In view of the fact that Mr. Farrar now is prepared to join us in the selection of an intensity VII earthquake for the Indian Point SSE (10 NRC at ___, dissenting opinion, p. 7), we perceive no occasion to dwell upon the reasons he gives for doing so. Nor is there need to discuss here the basis for his disagreement with our resolution of the ground acceleration question. As he makes clear (id. at ___, dissenting opinion, pp. 47-55), his quarrel is with the methodology employed both in this proceeding and in the Seabrook proceeding for ascertaining the ground motion to which a nuclear plant is likely to be exposed as the result of the occurrence of an earthquake of a specified intensity.[2/]

2/ Mr. Farrar's dissenting opinion covers the two proceedings; in Seabrook, it is addressed to the views of the majority on the seismic issues there presented which were set forth in ALAB-422, 6 NRC 33, 57-64.

In a supplemental opinion issued today, the Seabrook Board majority responded to Mr. Farrar's criticisms of that methodology. 10 NRC at ___ (slip opinion, pp. 14-16). We agree with that response and are content to rest upon it.[3/]

What that leaves is the microseismic monitoring network question which was not presented in Seabrook. In ALAB-436, we said:

> The preponderance of the evidence indicates that an expanded network will not produce data to enhance assurance of public health and safety. The data already at hand from the existing networks do not provide any basis for requiring an additional network.

6 NRC at 624. Mr. Farrar does not explain why this conclusion was wrong, other than to note the staff's belief that "something in the general vicinity appears to be 'localizing earthquake activity'" and, therefore, "safety would be enhanced by pursuing further investigation in the vicinity". 10 NRC at ___ (dissenting opinion, p. 57). In our judgment, this unparticularized (and unsupported) belief is much too thin a reed upon which to saddle the licensees and their ratepayers with the million dollar expense (see 6 NRC at

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3/ The discussion of the Fourier analysis at the conclusion of the Seabrook majority's supplemental opinion is equally applicable to a postulated intensity VII earthquake occurring in the vicinity of the Indian Point site.

608-609) which installation and operation of the network would entail. This is particularly so given the general agreement (not challenged by Mr. Farrar) that the Ramapo fault -- the existence of which prompted the staff's decision to call for the expanded microseismic network -- is not a capable fault.

Mr. Farrar also suggests that the network would "advanc[e] our general knowledge of seismicity, particularly with respect to the relationship between microearthquakes and larger earthquakes". 10 NRC at ___ (dissenting opinion, p. 57). Perhaps so. But, absent some indication (and we think there is none) that the enlarged network is necessary to provide reasonable assurance that operation of the Indian Point reactors will not endanger the public health and safety, it is difficult to understand why the licensees and their ratepayers should be required to bear the considerable cost of broad-gauged seismic research projects.