

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

Apr 11 19. 1983

EXHIBIT A

DANIEL GUTMAN

Q. Please state your name and business.

A. My name is Daniel Gutman. My address is 407 W. 44th Street, New York, New York 10036. I am a consultant in the fields of air pollution dispersion and traffic analysis.

Q. By whom have you been employed?

A. Between September 1978 and August 1980 I was employed by the United States Environmental Protection Agency in connection with EPA's participation in the Westway Indirect Source Permit proceedings before New York State Department of Environmental Conservation. I was responsible for EPA's analysis of the traffic and air pollution modelling for the highway.

Since then I have been a consultant to other organizations such as the N.Y.C. Public Development Corporation, the Natural Resources Defense Council, and the Environmental Defense Fund, for which I testified in the hearings regarding the Lovett Station, across the river from Indian Point.

Q. What is your educational background?

A. I received an MS degree in physics from the University of Illinois in 1966, and a BS in physics from the Massachusetts Institute of Technology in 1964. I am currently pursuing a doctorate in physics at the City College of New York.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to review certain evidence relating to the likelihood that winds from Indian Point, particularly those that might carry with them radioactive material, reaching lower Westchester County and New York City.

Q. How did this issue come up?

A. I was asked to review the testimony of Ms. Lamonica and Mr. Cohen, witnesses who appeared in this proceeding on behalf of the Power Authority of the State of New York and Consolidated Edison, respectively. More specifically, I was given the testimony provided by those witnesses in response to questions by the Atomic Safety and Licensing Board judges about prevailing wind patterns and other meteorological information contained in the Safety Analysis Report for Indian Point, which was not a part of the record here. Their testimony was rather cursory and did not fully answer the judges' questions.

Q. Please describe the trajectory study referred to by the utilities' witnesses.

A. The trajectory study was mentioned by Mr. Cohen on pages 11718, 11721-27 of the transcript of March 25, 1983. This study used wind data, (direction and speed), from 13-14 monitoring sites in the Hudson Valley from Iona Island north of Indian Point to Piermont, south of the Tappan Zee Bridge. The data was fed into a computer, which generated trajectories for hourly releases from Indian Point for a ten month period. The end point of each hourly release was recorded after one hour, two hours, etc., up to the eighth hour. Thus there are eight times as many end points as releases, and there is one release for each hour in the ten month period.

Q. What were the results of the study?

A. The results, contained in the F.S.A.R. Meteorological Update, September 1981, Table 14, show that, depending on the month, (and except for July), between 11% and 31% of the end points were south of Piermont, the southern boundary of the study. This, however, is for end points, not for releases. The percentage of releases that cross the southern boundary is higher,

and perhaps substantially higher.

The reason for this is that a release that eventually crosses the Southern boundary, in hour five, for example, will still contribute four end points (for hours one to four) that are not south of that boundary. A release that does not cross a boundary contributes eight endpoints that are not south of the southern boundary. If these were the only two releases, 50% of the releases would have crossed the southern boundary, but only 25% of the endpoints.

Q. What conclusions can one draw from this study?

A. Based on this study, one can conclude that there is a substantial probability--20 to 30% at minimum--that a low level release at Indian Point will reach lower Westchester County or New York City, which is only 9 miles south of Piermont.

One should keep in mind that although this study appears to be one of the most extensive ever carried out in the Hudson Valley, it was limited in the sense that it tracked parcels only for eight hours and only to Piermont.

Q. Are there other limitations of the study?

A. Yes, this study only dealt with surface winds, which are part of the Valley wind system. Higher level winds, above about 400 feet, are generally decoupled from the Valley flow. These winds are synoptic scale and, as pointed out by Mr. Cohen (T. 11719), are more persistent. Thus, if a release from Indian Point were to rise to 400 feet or above, it may be even more likely that radioactive material would reach New York City if there is a northerly wind. Unfortunately, there is very little data in the F.S.A.R. regarding synoptic winds, particularly the frequency of persistent north winds.