

DOCKETED  
USNRC  
April 27, 1988

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

'88 APR 29 11:32

OFFICE OF SECRETARY  
DOCKETING & SERVICE  
BRANCH

Before the Atomic Safety and Licensing Board

\_\_\_\_\_  
In the Matter of )  
 )  
LONG ISLAND LIGHTING COMPANY ) Docket No. 50-322-OL-3  
 ) (Emergency Planning)  
(Shoreham Nuclear Power Station, )  
Unit 1) )  
\_\_\_\_\_) )

GOVERNMENTS' RESPONSE TO LILCO'S AND THE NRC  
STAFF'S MOTIONS TO STRIKE PORTIONS OF DIRECT  
TESTIMONY ON BEHALF OF SUFFOLK COUNTY REGARDING  
THE EMERGENCY BROADCAST SYSTEM CONTENTION

I. INTRODUCTION

On April 20, 1988, LILCO and the NRC Staff moved to strike portions of the "Direct Testimony of Charles G. Perry, III and Gregory C. Minor on Behalf of Suffolk County Regarding LILCO's Emergency Broadcast System," filed on April 13, 1988 ("Perry/Minor Testimony").<sup>1/</sup> Suffolk County, the State of New

<sup>1/</sup> See "LILCO's Motion to Strike Direct Testimony of Charles G. Perry, III and Gregory C. Minor on Behalf of Suffolk County Regarding LILCO's Emergency Broadcast System," dated April 20, 1988 ("LILCO Motion") and "NRC Staff Motion to Strike Portion of Testimony of Gregory C. Minor Regarding the EBS Issue," dated April 20, 1988 ("Staff Motion").

York and the Town of Southampton hereby respond and urge that both motions be denied.

The Perry/Minor Testimony supports the Board-admitted portions of the Governments' Emergency Broadcast System ("EBS") contention and identifies deficiencies and inadequacies in LILCO's proposed EBS. In the opinion of Messrs. Perry and Minor, which is supported by a technical engineering report prepared by the engineering firm of Moffett, Larson & Johnson, LILCO's proposed EBS network does not have reliable daytime and nighttime AM and FM coverage of the Shoreham 10-mile Emergency Planning Zone ("EPZ"). As a result, LILCO's proposed EBS does not comply with Nuclear Regulatory Commission regulations and guidance.

LILCO prefaces its Motion by generalizing its objections into five categories. First, LILCO contends that portions of the Perry/Minor Testimony pertaining to the lack of EBS coverage beyond the EPZ is prohibited by this Board's Memorandum and Order (Board Ruling on Contentions Relating to LILCO's Emergency Broadcast System), Feb. 24, 1988 ("February 24 Order"). Second, LILCO argues that the portions of the Perry/Minor Testimony relating to comparisons between WPLR and WALK Radio are not relevant and are also excluded by the February 24 Order. Third, LILCO claims that the portions of the Perry/Minor Testimony concerning the low listenership of WPLR is irrelevant, lacks a basis in NRC regulations and is precluded by the February 24 Order. Fourth,

LILCO alleges that certain portions of the testimony should be stricken because they are "conclusory and lack either factual or legal basis." Finally, LILCO asserts that Mr. Minor should be precluded from testifying regarding LILCO's EBS because he is not an expert regarding emergency broadcast systems. LILCO Motion at 2-4.<sup>2/</sup>

It is significant to note that while LILCO seeks to strike substantial portions of the Perry/Minor Testimony, and perhaps even one of Suffolk County's witnesses, the Staff's Motion pertains only to one of Mr. Minor's answers relating to the lack of EBS coverage outside the EPZ, which the Staff claims is precluded by the February 24 Order.<sup>3/</sup>

For the reasons discussed below, both LILCO's and the Staff's arguments lack merit on all grounds and their Motions should be denied in their entirety. LILCO's general objections,

---

<sup>2/</sup> LILCO's Motion does not make clear whether LILCO seeks to strike Mr. Minor's testimony in its entirety, or whether LILCO only seeks to strike portions of the testimony. In either event, LILCO's Motion should be denied.

<sup>3/</sup> The Staff seeks to strike "pages 13 and 14 of the Minor testimony". Staff Motion at 1-2. However, page 14 of the Perry/Minor Testimony includes testimony relating to matters other than the failure of LILCO's EBS to provide coverage outside the EPZ. Therefore, for purposes of this Response, it is assumed that the Staff's Motion is directed to the one question and answer that begins on page 13 and ends on page 14 with "(Emphasis added)."

and the one Staff objection, will be discussed first, followed by a discussion of the application of such objections to specific portions of the Perry/Minor Testimony.

## II. GENERAL DISCUSSION

### A. Testimony Relating to Coverage Beyond the EPZ

Both LILCO and the Staff seek to strike portions of the Perry/Minor Testimony that relate to the failure of LILCO's proposed EBS network to provide coverage outside the EPZ. While LILCO claims that "many portions" of the testimony should be stricken on this basis, the Staff only seeks to strike one question and answer. LILCO Motion at 2; Staff Motion at 1-2.

In its February 24 Order, the Board did not disturb the Governments' claim that LILCO's EBS did not comply with regulatory requirements, specifically 10 CFR §§ 50.47(a)(1), (b)(5) and (b)(6), 10 CFR Part 50, Appendix E §§ IV.D.2 and 3, NUREG 0654 §§ II.E.5 and E.6, and Appendix 3 thereto, and FEMA REP-10. The testimony which LILCO seeks to strike simply discusses how certain of these provisions require LILCO's EBS to provide coverage to persons outside the EPZ, and LILCO's failure to provide coverage to such persons. Such testimony is entirely proper.

Moreover, it is disingenuous for LILCO to seek to strike a question relating to LILCO's EBS' compliance with regulations and guidance. LILCO's own testimony<sup>4/</sup> includes virtually the exact same question on whether LILCO's EBS complies with regulatory requirements. LILCO Testimony at 13. Not surprisingly, LILCO arrives at a different answer. However, LILCO's disagreement on the answer to the question is not the proper subject for a motion to strike; rather, such disagreements are to be resolved by the Board after hearing the evidence.

It is equally disingenuous for LILCO to attempt to strike references to the coverage of the EBS outside the EPZ, since its own testimony and its Plan address that very issue. For example, on page 2, lines 12-13 of the LILCO Testimony, Mr. Crocker testifies that:

"[t]ogether, these ten stations provide coverage of the entire EPZ and most of Long Island." (Emphasis added).

Since LILCO's Testimony contains that assertion, the Governments must be allowed to dispute it. In addition, Mr. Crocker also discusses the need for WPLR's signal to activate tone alert receivers at the nine other EBS radio stations in Connecticut and

---

<sup>4/</sup> "Testimony of Douglas Crocker, Ralph E. Dippell and William G. Johnson on the Remanded Issue of the Coverage of LILCO's Emergency Broadcast System," dated April 13, 1988 ("LILCO Testimony").

on Long Island. LILCO Testimony at 2. As most of these stations' transmitters are outside the EPZ, this testimony necessarily raises the issue of the coverage of WPLR in areas outside the EPZ.<sup>5/</sup>

Therefore, testimony relating to EBS coverage outside the EPZ is proper because it is based on the regulations left standing in the Board's February 24 Order and because LILCO's own testimony places the matter in issue. The Board should thus deny the LILCO and Staff motions to strike those portions of the Perry/Minor Testimony that relate to the failure of LILCO's EBS to cover areas outside the EPZ. If the Board does not deny LILCO's Motion to strike this testimony, then it must at least similarly strike those portions of the LILCO Testimony that relate to the purported coverage of LILCO's EBS outside the EPZ.

B. Testimony Relating to Issues Regarding WALK Radio

LILCO next seeks to strike certain portions of the Perry/Minor Testimony that LILCO claims draw comparisons between WPLR and WALK Radio. LILCO contends that such comparisons are

---

<sup>5/</sup> Additionally, LILCO's own Plan provides for the communication of emergency information to persons outside the EPZ. As noted in Mr. Minor's testimony, OPIP 3.8.2, § 5.2.2g (concerning EBS "Message Assembly") instructs the LERO Coordinator of Public Information to develop an EBS message for persons outside the EPZ. Moreover, LILCO's sample EBS messages, contained in OPIP 3.8.2, Attachment 4, include messages to persons outside the EPZ. See Perry/Minor Testimony at 13-14.

not relevant to whether LILCO's current EBS satisfies NRC regulations and are prohibited by the Board's February 24 Order. LILCO Motion at 2. The Staff does not seek to strike any testimony on this ground.

LILCO seeks to strike only one sentence in the Perry/Minor Testimony on the ground that it allegedly draws comparisons between WPLR and WALK Radio. LILCO Motion at 4. However, the one sentence that LILCO seeks to strike is not the witnesses' comparison of WPLR and WALK Radio; rather it is merely a direct quote from a previous version of LILCO's Plan.<sup>6/</sup> The sentence is included within the Perry/Minor Testimony only as background information, and to demonstrate the witnesses' familiarity with LILCO's "Motion for Summary Disposition of the WALK Radio Issue," dated November 6, 1987.

Moreover, LILCO is again being disingenuous by seeking to strike the sentence in the Perry/Minor Testimony that references WALK Radio. LILCO's own testimony includes references to its prior EBS network -- a network that included WALK Radio. For instance, LILCO's witnesses testify, on pages 2-3, that WPLR would alert other stations in the EBS network "in a manner

---

<sup>6/</sup> The one sentence that LILCO seeks to strike on this basis is: "According to LILCO, WALK was selected to be the primary, or lead, station because it is 'the most powerful broadcasting station in the area and simultaneously broadcasts on AM and FM.' LILCO Plan, Appendix A, at IV-3 (Rev. 6)."

similar to the EBS system previously found acceptable."<sup>2/</sup> Thus, the Board must either deny LILCO's Motion regarding the background testimony relating to WALK Radio, or alternatively, the LILCO Testimony on that same subject must be stricken.

C. Testimony Relating to WPLR Listenership in the EPZ

LILCO asserts that a brief reference in the Perry/Minor Testimony relating to WPLR's low listenership should be stricken because it is irrelevant, lacks basis in NRC regulations and is precluded by the February 24 Order. LILCO Motion at 3. The Staff does not seek to strike any testimony on this ground.

For reasons already stated by the Governments, the low listenership of WPLR and the other stations participating in LILCO's EBS network is clearly relevant to the principal issue of this proceeding, which is the adequacy of LILCO's proposed EBS network. See "Suffolk County, State of New York and Town of Southampton Motion for Reconsideration of this Board's Memorandum and Order Ruling on Contention Relating to LILCO's Emergency Broadcast System," dated March 7, 1988. Those reasons will not be repeated here.

---

<sup>2/</sup> Further, the LILCO Testimony, on page 9, references agreements made by radio stations "that were part of the previous Shoreham EBS."

LILCO's Motion to strike the portions of the testimony relating to listenership should accordingly be denied.

D. Testimony That Purportedly Lacks a Factual or Legal Basis

LILCO attempts to preclude portions of the Perry/Minor Testimony because in LILCO's view they are "conclusory and lack either factual or legal basis." LILCO Motion at 3. LILCO further claims that the testimony does not offer "affirmative facts or evidence to substantiate those allegations." Id. The Staff does not seek to exclude any testimony on this ground.

A motion to strike is not the proper vehicle for this objection. Whether the bases for a witness' opinions or conclusions are adequate is irrelevant to the issue of the admissibility of prefiled testimony. Rather, the Board should resolve factual disputes regarding the basis for testimony by reviewing the submitted testimony, hearing evidence (including that elicited under cross examination), and reviewing proposed findings of fact and conclusions of law in which the parties argue the merits of their case based on the evidence. The adequacy of the bases for expert opinions goes to the weight and credibility of the evidence proffered, which is a matter for the Board to determine after the parties have presented their

evidence and conducted cross examination. LILCO will have an opportunity at the hearing to cross examine Messrs. Perry and Minor to determine the bases for their conclusions and opinions.

In addition, while expert witnesses are entitled to give their conclusions and opinions, there is no requirement that a witness set forth in testimony every fact or other consideration that supports a given conclusion or opinion. LILCO's Motion to strike the portions of the Perry/Minor Testimony that purportedly lack a factual or legal basis should, therefore, be denied.

E. Gregory C. Minor's Testimony Regarding LILCO's EBS

LILCO seeks to strike Gregory C. Minor's sponsorship of testimony regarding LILCO's EBS because it is alleged that his professional qualifications fail to establish him as an expert regarding emergency broadcast systems. The Staff does not seek to strike Mr. Minor's sponsorship of testimony regarding LILCO's EBS.

As with LILCO's attempt to strike testimony that it claims does not have a legal or factual basis, a motion to strike is not the proper method for attacking a witness' qualifications. Rather, a witness' qualifications is a matter for the Board to determine after the parties have presented their evidence and conducted cross examination. If LILCO believes that Mr. Minor

does not qualify as an expert witness, it will have an opportunity at trial to conduct voir dire and cross examination and to present arguments on how much weight and credibility the Board should give Mr. Minor's testimony based on that voir dire and cross examination.

Moreover, the focus of Mr. Minor's testimony is not related to the coverage of LILCO's EBS, as LILCO claims (LILCO Motion at 4), but rather to whether LILCO's EBS complies with regulatory requirements. Mr. Minor has testified as an expert witness in numerous proceedings before the Nuclear Regulatory Commission and is clearly qualified as an expert on NRC regulatory requirements.

In any event, Mr. Minor is eminently qualified to testify concerning LILCO's EBS. Mr. Minor's statement of professional qualifications, which is Attachment 3 to the Perry/Minor Testimony, indicates that he received both a bachelor of science degree and a masters degree in electrical engineering. In addition, Mr. Minor took courses in engineering while employed by the General Electric Company. Mr. Minor has also taken courses in radio field theory and radio wave propagation, and was involved with work related to the propagation of radio waves and radio transmission while he was employed by General Electric. Moreover, Mr. Minor was present during part of the time when Moffet, Larson & Johnson performed field tests on the radio signal coverage of LILCO's EBS, and, he assisted in the

preparation of the Moffet, Larson & Johnson engineering report that summarizes the results of those tests, which is included as Attachment 4 to the Perry/Minor Testimony.

Finally, it is once again disingenuous of LILCO to seek to strike the testimony of Mr. Minor, when one of its witnesses, who admittedly has no experience in matters relating to radio signal coverage, Douglas Crocker, sponsors testimony concerning the coverage of WPLR's signal. Mr. Crocker, who is manager of LILCO's Nuclear Emergency Preparedness Division, admitted during his deposition that he has no background in the measurement or analysis of radio signals. See Attachment 1 to this Response. However, despite this lack of background, Mr. Crocker sponsors testimony concerning WPLR's transmission of its radio signal, see LILCO Testimony at 3-4, the effect that geography has on a radio signal's coverage, see LILCO Testimony at 5, and the signal coverage of the AM radio stations in LILCO's EBS network, see LILCO Testimony at 8.

Thus, LILCO's Motion to strike the portions of Mr. Minor's testimony regarding LILCO's EBS should be denied.

III. LILCO'S OBJECTIONS TO SPECIFIC  
PARTS OF THE PERRY/MINOR TESTIMONY

- A. Minor p. 4, line 5 beginning with "[Minor]" through p. 5, line 8 ending with "of the testimony."

This portion of the testimony that LILCO seeks to strike is Mr. Minor's recitation of his professional qualifications and Mr. Minor's and Mr. Perry's statement that unless otherwise noted, they jointly sponsor the testimony. LILCO also apparently seeks to strike Mr. Minor as an expert witness on the issue of emergency broadcast systems.

As discussed above, witnesses or testimony should not be stricken based on LILCO's claim that a witness is not qualified as an expert. Rather, a witness' qualifications goes solely to the weight and credibility of the evidence proffered, which is a matter for the Board to assess after hearing evidence, including that elicited under cross examination, and reviewing proposed findings of fact and conclusions of law in which the parties argue the merits of their case based on the evidence.

Moreover, the portion of the testimony sought to be stricken relating to Mr. Minor's qualifications demonstrates that he is highly qualified to testify on matters relating to LILCO's EBS,

and this Board should give his testimony great weight and credibility. Therefore, LILCO's Motion to strike this testimony should be denied.

- B. Perry/Minor p. 5, line 19 beginning "According to LILCO" through p. 6, line 3 ending with "IV-3 (Rev.6)."

LILCO seeks to strike this portion of the Perry/Minor Testimony, which is only one sentence, because it claims the February 24 Order precludes any comparison between WPLR and WALK Radio.

This portion of the Perry/Minor Testimony should not be stricken because its purpose and meaning are not to compare WPLR and WALK Radio, but rather to demonstrate the witnesses' understanding of how WPLR came to replace WALK Radio. The testimony merely states that WALK Radio is "the most powerful broadcasting station in the area and simultaneously broadcast on AM and FM", and does not compare WALK Radio to WPLR, nor does it even mention WPLR. Moreover, as discussed above, the sentence sought to be stricken is simply a recitation of a direct quote from a previous version of the LILCO Plan.

- C. Minor p. 13, line 1 beginning with "Q. Does LILCO's EBS" through p.14, line 9 ending with "(Emphasis added)."

LILCO seeks to strike this question and answer relating to the LILCO EBS' failure to provide coverage outside the EPZ because it claims that it is precluded by the February 24 Order. In addition, the Staff, in its one objection to the testimony, seeks to preclude this same question and answer.

The question and answer sought to be precluded by LILCO and the Staff is simply Mr. Minor's opinion as to whether LILCO's EBS proposal complies with NRC regulations and guidance. The application of these regulations and guidance to LILCO's EBS was not disturbed by the Board in its February 24 Order. Furthermore, as discussed above, LILCO is disingenuous in seeking to strike this testimony, since it poses the same question in its own testimony and includes in its testimony references to the purported coverage of the EBS outside the EPZ. Finally, LILCO's own Plan provides for communications of emergency information via the EBS to persons outside the EPZ. See, e.g., OPIP 3.8.2, § 5.2.2.g and OPIP 3.8.2, Attachment 4. LILCO's and the Staff's objections should therefore be denied.

- D. Minor p. 14, line 19 beginning with "[Minor]" through p. 15, line 7 ending with "described in the attached report."

LILCO seeks to strike this question and answer because it claims Mr. Minor is not qualified as an expert regarding EBS. The testimony at issue relates only to Mr. Minor's description of his familiarity and involvement with the taking of the field measurement tests by Moffet, Larson & Johnson, and gives his opinion that the facts stated in the Moffet, Larson & Johnson engineering report were true.

As discussed above, testimony should not be stricken solely because LILCO claims a particular witness is not an expert on that issue. A witness can give his opinion as to matters that are appropriately before this Board. The Board will have an opportunity to assess the appropriate weight and credibility given to Mr. Minor's testimony based on his qualifications and any voir dire and cross examination conducted by LILCO.

Furthermore, as his professional qualifications illustrate, Mr. Minor is well qualified to testify concerning LILCO's EBS. Mr. Minor has testified on numerous occasions before this Board as an expert witness, and is able to testify knowledgeably and fully as to the portions of the testimony that he sponsored. Therefore, LILCO's objection should be rejected.

- E. Perry/Minor p. 15, line 8 beginning with "Q. Did you review" through p. 16, line 20 ending with "results had been prepared."

LILCO seeks to strike this portion of the testimony because it claims that it is irrelevant to the EBS contention whether Mr. Perry or Mr. Minor reviewed LILCO's report of the EBS coverage of the EPZ prior to conducting and preparing a report.

LILCO is wrong, and its objection should be denied, because it is clearly relevant whether Mr. Perry reviewed other results, or was informed of those results by Mr. Minor or others, prior to conducting measurements of the coverage of LILCO's EBS and preparing a report. This testimony demonstrates that Mr. Perry objectively conducted the measurements and prepared a report with no preconceptions. It can also be used to rebut any claim by LILCO that Mr. Perry's report was prejudiced by his knowledge of LILCO's report, or that he prepared his report with the sole intention of refuting LILCO's report.

- F. Perry/Minor p. 25, line 19 beginning "With respect to" through p. 26, line 12

LILCO seeks to strike the portion of the Perry/Minor Testimony that questions whether WPLR's signal reaches all parts of the EPZ due to obstructions, including the hilly geography of the north shore, and also due to interference from several nearby FM stations that broadcast on frequencies close to WPLR's

frequency of 99.1. LILCO claims that this testimony should be excluded because Messrs. Perry and Minor do not have sufficient data to permit such conclusions.

Whether the witnesses have sufficient bases for their testimony is a matter for the Board to decide after hearing all of the evidence. Indeed, LILCO's argument goes to the weight of their testimony, not its admissibility. Expert witnesses are allowed to give their opinion as to matters that are properly the subject of the testimony, and it is undisputed that the coverage of the EPZ by WPLR is one of the relevant subjects of the EBS hearing. LILCO will have an opportunity to cross examine the witnesses in order to explore the bases for their opinions as to factors that do and could cause impairments of WPLR's signal.

Moreover, every basis for each opinion expressed in the testimony need not be included in the pre-filed testimony. Accordingly, LILCO's objection should be rejected.

- G. Perry/Minor p. 26, line 13 through line 21 ending with "Shoreham. 4/", including the passage contained in footnote 4

LILCO seeks to strike this portion of the testimony relating to the low listenership in Suffolk County of WPLR and the entire EBS network because it claims it is precluded by the February 24 Order.

For the reasons previously stated by the Governments, LILCO's objection to testimony concerning the rate of listenership accordingly should be denied.

H. Perry/Minor p. 27, line 3 beginning with "even if it is" through line 6

LILCO seeks to exclude a portion of the testimony raising a hypothetical assumption that everyone in the EPZ with AM/FM radios would listen to only FM stations, or those FM stations participating in LILCO's EBS. LILCO claims that the public's listening habits are irrelevant and were precluded by the February 24 Order.

First, whether those persons with AM/FM radios would listen to only FM stations was not addressed in the February 24 Order. Second, this assumption is being offered only because LILCO has included in its Motion for Summary Disposition of the WALK Radio Issue and its testimony, a survey it prepared concerning the households in the EPZ that own FM or AM/FM radios. This survey was apparently prepared by LILCO to show that its failure to provide nighttime AM coverage to substantial portions of the EPZ is not significant. However, it presents the results of the survey in an extremely misleading manner. The testimony at issue is only being offered to clear up, and put into perspective, testimony being offered by LILCO.

Thus, LILCO's objection is inappropriate and should be denied because the testimony that it seeks to exclude was not precluded by the February 24 Order and is relevant because it relates to LILCO's own testimony.

- I. Perry/Minor p. 28, line 13 beginning with "Second," through line 22 ending with 126".

LILCO seeks to strike the portion of the testimony relating to the impairment of WPLR's signal in the EPZ due to the directional orientation of rooftop radio antennas in the EPZ. The testimony cites for support the deposition testimony of LILCO's witness, Ralph Dippell. LILCO claims that there is no basis for the testimony and that Mr. Dippell's deposition testimony has been misapplied.

First, as discussed above, there is clearly a basis for the testimony as expert witnesses are allowed to give their opinion as to matters that are properly the subject of the testimony. It is undisputed that the directional orientation of the rooftop antennas in the EPZ, and their effect on the reliability of WPLR's signal in the EPZ, is one of the relevant subjects of the EBS hearing. LILCO will have an opportunity to cross examine Messrs. Perry and Minor in order to explore the bases for their opinions, and the Board will take into account the bases for the opinions of the witnesses when assessing the weight and credibility it gives to the testimony.

Second, the testimony does not misapply, or mischaracterize, the deposition testimony of Mr. Dippell. The Perry/Minor Testimony that cites Mr. Dippell in support is that "most of the rooftop antennas in the EPZ are oriented in a nominal east-west direction, . . ." Perry/Minor Testimony at 28. Mr. Dippell, in his deposition of March 24, 1988, testified that "rooftop television antennas [in the EPZ] are probably pointed toward New York [east/west direction]." Dippell deposition at 126 (Attachment 2). As persons who use rooftop antennas for their FM reception usually rely on their rooftop television antenna, the testimony of Mr. Dippell is clearly consistent with, and does support, the Perry/Minor Testimony. LILCO's Motion must therefore be denied.

J. Perry/Minor p. 28, line 23 beginning with "Third" through p. 29, line 2 ending with "EPZ".

LILCO seeks to exclude the portion of the Perry/Minor testimony pertaining to the possible impairment of WPLR's signal due to the hilly landscape of the north shore of the EPZ and other obstructions. LILCO asserts that there is no basis for the testimony.

As discussed numerous times above, expert witnesses are allowed to give their opinions as to matters that are properly the subject of the testimony. The possible impairment of WPLR's signal due to the hilly landscape of the north shore of the EPZ

and other obstructions is clearly one of the relevant subjects of the EBS hearing. LILCO will have an opportunity to cross examine the witnesses in order to explore the bases for their opinions, and the Board will take into account these bases when assessing the weight and credibility it gives to the testimony of the witnesses. Therefore, LILCO's objection should be rejected.

K. Perry/Minor p. 32, line 5 beginning with "At this time" through line 7 ending with "contours"

LILCO seeks to strike the sentence concerning Messrs. Perry's and Minor's claim that they do not have available to them the data necessary to assess the accuracy of certain measurements performed by LILCO. LILCO claims that this sentence has no basis because LILCO has produced all the necessary raw data.

LILCO's assumption that this testimony relates only to the production of its raw data is wrong. The data referred to in the Perry/Minor Testimony does not relate to data produced by LILCO, but rather relates to the inability of the witnesses to perform tests to verify independently the accuracy of LILCO's measurements. Accordingly, LILCO's measurements can not be properly assessed, and LILCO's Motion should be rejected.

- L. Perry/Minor p. 33, line 2 beginning with "Given the" through line 3 ending with "LILCO"

LILCO seeks to strike the sentence as having no basis. The sentence, which relates to the failure of LILCO to perform measurements of the coverage of eight of the ten stations in LILCO's EBS, states:

"Given the significant consequences of a radiological emergency at Shoreham, we consider this a serious omission by LILCO."

LILCO's claim that this sentence has no basis is puzzling. LILCO has admitted that it performed measurements on only two of the ten stations participating in its EBS. In fact, when LILCO's witness Douglas Crocker was asked why the other eight stations were not tested, Mr. Crocker answered:

"Basically, at the time I assume we thought it wasn't necessary. We have an FM station that has got 24 hour a day coverage in the entire EPZ. Nothing more is necessary."

See Deposition of Douglas Crocker at 120. (Attachment 3).

As discussed above, it is proper for expert witnesses to give their opinions as to matters that are properly the subject of the hearing. Given the uncertainty of the accuracy of LILCO's computed contours, coupled with the significant consequences of a

radiological emergency at Shoreham, it is clearly appropriate for Messrs. Perry and Minor to opine in their testimony that LILCO should have performed additional measurements. LILCO will have an opportunity to cross examine the witnesses to ascertain their reasons for this opinion. Thus, LILCO's Motion should be denied.

M. Perry/Minor p. 34, line 1 beginning with "Q. Cohen" through line 8 ending with "own Plan"

LILCO seeks to strike this question and answer on the ground that such testimony precluded by the February 24 Order because it relates to LILCO's EBS's failure to provide coverage outside the EPZ.

The question and answer sought to be stricken by LILCO is simply the witnesses' interpretation of information contained in a map provided by LILCO in its testimony, and Mr. Minor's opinion whether LILCO's EBS proposal complies with NRC regulations and guidance. Furthermore, as discussed above, LILCO is being disingenuous in seeking to strike references to the coverage of the EBS outside the EPZ. Both its testimony and its Plan address that very issue. Moreover, also as discussed above, the application of these regulations and guidance to LILCO's EBS were not disturbed by the Board in its February 24 Order. LILCO's objection should therefore be rejected.

N. Attachment 3: Statement of Professional Qualifications  
of Gregory C. Minor

LILCO seeks to exclude the statement of professional qualifications of Gregory C. Minor because "it does not show any qualifications for Mr. Minor as an expert on radio coverage or emergency broadcast systems."

Mr. Minor's statement of professional qualifications should not be precluded simply because LILCO unilaterally claims he is not qualified as an expert. After the Board has heard the evidence, it will be in a position to judge the weight and credibility of the evidence proffered.

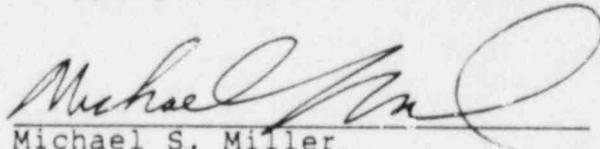
Further, as discussed above, Mr. Minor is eminently qualified to testify regarding radio coverage and emergency broadcast systems. Mr. Minor has both a bachelor of science degree and a masters degree in electrical engineering and took advanced courses in engineering with the General Electric Company. Mr. Minor was also present at times when signal measurements were taken by Moffet, Larson & Johnson and assisted in the preparation of the engineering report that summarized the results of those measurements. Moreover, Mr. Minor has testified on numerous occasions before this Board as an expert witness. Therefore, LILCO's Motion should be denied.

IV. CONCLUSION

For the reasons set forth above, the Board should deny both LILCO's and the Staff's Motions to strike portions of the Perry/Minor Testimony on behalf of Suffolk County regarding the Emergency Broadcast System contention.

Respectfully submitted,

E. Thomas Boyle, Esquire  
Suffolk County Attorney  
Bldg. 158, North County Complex  
Veterans Memorial Highway  
Hauppauge, New York 11788



Michael S. Miller  
Christopher M. McMurray  
Michael J. Missal  
KIRKPATRICK & LOCKHART  
1800 M Street, NW  
South Lobby - Ninth Floor  
Washington, DC 20036-5891

Attorneys for Suffolk County



Fabian G. Palomino  
Richard J. Zahnleuter  
Special Counsel to the Governor  
of the State of New York  
Executive Chamber, Room 229  
Capitol Building  
Albany, New York 12224

Attorney for Mario M. Cuomo  
Governor of the State of New York

*Stephen B. Latham* *cc*

Stephen B. Latham  
Twomey, Latham & Shea  
P.O. Box 398  
33 West Second Street  
Riverhead, New York 11901

Attorney for the Town of  
Southampton

ATTACHMENT 1

# TRANSCRIPT OF PROCEEDINGS

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION  
BEFORE THE  
ATOMIC SAFETY AND LICENSING BOARD

-----X  
In the Matter of: :  
LONG ISLAND LIGHTING COMPANY : Docket No. 50-322-OL-3  
(Shoreham Nuclear Power : (Emergency Planning)  
Station, Unit 1) : (EBS Issue)  
-----X

DEPOSITION OF DOUGLAS CROCKER

Hauppauge, New York

Tuesday, March 8, 1988

ACE-FEDERAL REPORTERS, INC.

*Stenotype Reporters*

444 North Capitol Street  
Washington, D.C. 20001

(202) 347-3700

Nationwide Coverage

800-336-6646

1 for the Zimmer Station. It would fit into that time frame.

2 Q What did you do to develop an EBS System there?

3 A My Staff then, we worked generally on emergency  
4 planning for station. A piece of it was developing an EBS  
5 network.

6 Q Do you recall exactly what you did to develop it?

7 A We talked to the radio stations, we trained them,  
8 we did basically the same sort of thing we are doing here.

9 Q Do you have any background in the measurement or  
10 analysis of the coverage of radio signals?

11 A No, I don't.

12 Q Will you please summarize the substance of your  
13 testimony?

14 A I am LILCO's representative on the panel of  
15 witnesses. I will discuss the plans, procedures, the  
16 training that is involved.

17 Q Anything else?

18 A That is generally it.

19 Q Are you aware of any other witnesses in this  
20 proceeding?

21 A Yes.

22 Q Who are they, or who is it?

ATTACHMENT 2

# TRANSCRIPT OF PROCEEDINGS

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION  
BEFORE THE  
ATOMIC SAFETY AND LICENSING BOARD

----- -x  
In the Matter of: :  
LONG ISLAND LIGHTING COMPANY : Docket No. 50-322-OL-3  
(Shoreham Nuclear Power : (Emergency Planning)  
Station, Unit 1) : (EBS Issue)  
----- -x

DEPOSITION OF RALPH E. DIPPELL

Washington, D. C.

Thursday, March 24, 1988

ACE-FEDERAL REPORTERS, INC.

*Stenotype Reporters*

444 North Capitol Street

Washington, D.C. 20001

(202) 347-3700

Nationwide Coverage

800-336-6646

1 Q Would dipolar FM antennas be oriented in a  
2 certain way, certain direction?

3 A Just depending on how the receiver is set on the  
4 table. It's random.

5 Q Do you have an opinion whether FM dipolar  
6 antennas would be oriented in an east/west fashion in the  
7 EPZ?

8 A I have no reason to believe that they would.

9 Q Do you have any reason to believe they would not?

10 A My belief is that they are probably randomly  
11 oriented.

12 Q What do you base that belief on?

13 A Because people listen to stations at all  
14 different azimuth angles, signals approaching from many  
15 different directions.

16 Q Do you have any opinion as to the directional  
17 orientation of television antennas on Long Island?

18 A I believe that rooftop television antennas are  
19 probably pointed toward New York.

20 Q Which is in an east/west fashion?

21 A Correct.

22 Q What do you base that belief on?

ATTACHMENT 3

# TRANSCRIPT OF PROCEEDINGS

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION  
BEFORE THE  
ATOMIC SAFETY AND LICENSING BOARD

-----X  
In the Matter of: :  
LONG ISLAND LIGHTING COMPANY : Docket No. 50-322-OL-3  
(Shoreham Nuclear Power : (Emergency Planning)  
Station, Unit 1) : (EBS Issue)  
-----X

DEPOSITION OF DOUGLAS CROCKER

Hauppauge, New York

Tuesday, March 8, 1988

ACE-FEDERAL REPORTERS, INC.

*Stenotype Reporters*

444 North Capitol Street  
Washington, D.C. 20001

(202) 347-3700

Nationwide Coverage

800-336-6646

17  
1 A We discussed it.

2 Q Who discussed it?

3 A Certainly my boss, Chuck Daverio. Brandt and I  
4 have probably discussed it from time to time. We may have  
5 discussed it with the attorneys.

6 This occurred over many, many months. So, I'm  
7 sure we discussed it with several people.

8 Q And, why was a decision made not to do field  
9 tests?

10 MR. MATCHETT: I don't think Mr. Crocker  
11 testified that no decision has been made.

12 BY MR. MISSAL: (Continuing)

13 Q Have you done any field tests other than what we  
14 have discussed?

15 A These are the formal field tests that we have  
16 done.

17 Q Other than these, you said you considered doing  
18 other tests; is that correct?

19 A We talked about it, yeah.

20 Q And, have any other tests been done?

21 A No, they have not.

22 Q Why not?

01  
1 A Basically, at the time I assume we thought it  
2 wasn't necessary. We have an FM station that has got 24  
3 hour a day coverage in the entire EPZ. Nothing more is  
4 necessary.

5 Q So, based on your opinion that WPLR-FM covers the  
6 entire EPZ you decided not to do any more tests other than  
7 what you have before you?

8 A I suspect that was what I thought at the time,  
9 yeah.

10 Q Without including WPLR, are there any FM stations  
11 in LILCO's EBS network that have full coverage of the EPZ  
12 according to FCC contours 24 hours a day?

13 A I think we can best answer the question if we  
14 turn to this document, this page of Exhibit 8.

15 Q Which is?

16 A Figure 2 of that report. Exhibit 8 is the  
17 September Cohen and Dippell report.

18 Q Now, which page or map are you referring to?

19 A It's Figure 2. And, the title of that figure is  
20 "Computed AM Nighttime Interference-Free and FM 1 Millivolt  
21 Per Meter Contours for the Indicated Stations."

22 And, you can see on that figure the contours for