

Johnson

CORRECTIONS TO DEPOSITION

| Page | Line | Correction: |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | 6 | conclusion |  |
| 13 | 10 | az |  |
| 16 | 12 | operated |  |
| 18 | 20 | respondent |  |
| 25 | 9 | that |  |
| 25 | 9 | Type |  |
|  |  |  |  |
|  |  |  |  |

```
                        UNITED STATES OF AMERICA
                    NUCLEAR REGULATURY COMHISSION
    Before the Atomic Safety and Licensing Board
-----------------------------------x
In the Matter of ) Docket No. 50-322-OL-3
LONG ISLAND LIGHTING COMPANY ) (Emergency Planning)
(Shoreham Nuclear Power Station,) (EBS Issue)
Unit 1) )
-------------------------------------
            UEPOSITION OF WILLIAM G. JOHNSON
                New York, New York
                Friday, March 18, 1988
            Deposition of WILLIAM G. JOHNSON, called for
examination by agreement of counsel, at the Law Offices of
Hunton & Willaims, 100 Park Avenue, at 10:00 a.m., before
Garrett J. Walsh, Jr., a Notary Public in and for the State
of Virginia at Large, when were present on behalf of the
respective parties:
```

Ace.Federal Reporters, Inc
K. DENNIS SISK, Esq., Hunton \& Williams, 100 Park Avenue, New York, New York, and RITA SHEFEEY, Esq, Hunton \& Williams, 707 E. Main Street, P. O. Box 1535, Richmond, Virginia, 23212, on behalf of the Applicant, Long Island Lighting Company. MICHAEL MILiERR, Esq., Kirkpatrick \& Lockhart, South Lobby, 1800 M. Street, N. W., Washington, D. C., 20036-5891, on behalf of the Intervener, County of Suffolk.

Ace.Federal Reporters, Inc

## CONTENTS

## WITNESS

William G. Johnson
by Mr. Miller

EXHIBITS
JOHNSON DEPOSITION NUMBER
IDENTIFIED
Exhibit $1-\underset{\mathrm{EPZ}}{\mathrm{POll}}$ of 600 residents of Shoreham 9
Exhibit 2 - Survey questions

GW/gw 1
PROCEEDINGS

Whereupon,
WILLIAM G. JOHNSON, was called as a witness, and having first been duly sworn, was examined and testified as follows:

## DIRECT EXAMINATION

## BY MR. MILLER:

Q Good morning, Mr. Johnson. My name is Michael Miller, and I am with the Law Firm of Kirkpatrick \& Lockhart. As I think you know, we represent Suffolk County in the Shoreham Licensing Proceeding befor the Nuclear Regulatory Commission, and I am here to ask you some questions today regarding LILCO's proposal regarding its emergency broadcast system network, which I will refer to as the EBS network.

I understand, Mr. Johnson, that you will be a witness for LILCO with respect to the EBS issues in this proceeding, is that correct?

A That is what I understand.
Q Can you tell me, Mr. Johnson, approximately when you learned that you would testify for LILCO?

A It was -- I was retained -- it was in

Ace-Federal Reporters, Inc

September, I believe. In September I was told that I might be asked to testify.

Q Can you tell me when you first learned that you would, in fact, testify on LILCO's behalf?

A Last week.

Q You were informed by counsel for LILCO, is that correct?

A That is co:rect.

Q Can you tell me, Mr. Johnson, your understanding at the present time as to what you will testify about?

A I believe I will be asked to testify about the survey that my firin conducted for LILCO.

Q This is the telephone survey that was conducted late September, early October?

A That is correct.
Q At this time, Mr. Johnson, do you believe you will be testifying about any other aspects of LILCO's EBS Network.

A Not that I am aware of.
Q Would it be fair to say, Mr. Johnson, that a summary of your testimony that will be presented can be found by reviewing the affidavit that you filed on LILCO's
benalf last Fall with respect to summary disposition motion in this case?
MR. SISK: I will object to that question as calling for speculation insofar as the testimony has yet to be filed.
The witness can answer it based on his present understanding.
THE WITNESS: I don't know.
BY MR HILLER: (Continuing)
Q Are you telling me, Mr. Johnson, at this time you do not know what your testimony will be?
A I do not know how my -- I am not a lawyer, and I don't know how my testimony, the form of my testimony might differ from the affidavit that I signed.
Q Mr. Johnson, although the form may differ, at this time do you believe that you will substantively be testifying about any matters not set forth in the affidavit that was attached to LILCO's motion for summary disposition?
A Could you repeat that, please. I am sorry.
Q From a substantive standpoint, do you belleve the matters you will be addressing in your testimony are already set forth in the affidavit that was filed on LILCO's

Ace Federal Reporters, Inc

```
behalf with respect to its motion for summary disposition
last Fall?
    A As I understand your question, yes.
    Q Have you met the other witnesses that will
testify for LILCO on this issue?
    A I don't know who the other witnesses are.
    Q Have you met a Mr. Ralph Dippell?
    A I don't belleve so.
    Q Do you know who Mr. Ralph Dippell is?
    A No, I do not.
    Q D) you know Doug Crocker?
    A I don't believe so.
    Q Is it fair to say, Mr. Johnson, at this time you
have not drafted any of the testimony that will be Illed on
LILCO's behalf?
    MR. SISK: I object to that as privileged
information relating to matters protected by attorney-work
product privilege.
    MR. MILLER: Whether he has begun to draft his
testimony is privileged?
    MR. SISK: I believe that is correct, Mike. I
will allow him to answer the question without further
```

Ace.Federal Reporters, Inc
waiver of the privilege.
THE WITNESS: I hare not written any testimony at this time, any additional teritimony at this time. BY MR. MILLER: (Continuing)

Q Mr. Johnson, is it fair to say that you have not testified with respect to any emergency preparedness or emergency planning issues since December of 1983, when you testified on LILCO's behalf on, I believe, role conflict and shadow phenomenon issues?

MR. SISK: Is that question, Mike, confined to this particular proceeding?

MR. MILLER: No. I would like to know if
Mr. Johnson has testified anywhere with respect to emergency preparedness or emergency planning for a radio:ogical emergency?

THE WITNESS: I have not.
BY MR. MILLER: (Continuing)
Q Was the first time you had so testified December 1983, when you testified on LILCO's behalf on role conflict and shadow phenomenon issues?

A In terms of -- I had submitted written testimony prior to that particular hearing, but that hearing was the

Ace.Federal Reporters, Inc

```
first time I had so testified.
    Q So, it is the first and only time?
    A I believe there were several hearings, but they
were the only times, that is correct?
    Q Several hearings, all with respect to the
Shoreham plant?
    A That is correct.
    Q Could you summarize for me, Mr. Johnson, the
conclusions that you believe can be drawn from the telephone
survey that was conducted by your company last September and
October of 1987?
    A I don't have the results of the survey in front
of me. If you have a copy, I could .. 
                            MR. MILLER: I do have a copy. Let's mark this
as Johnson Exhibit 1.
                (Poll of }600\mathrm{ residents of Shoreham EP2 is
                                    marked Johnson Deposition Exhibit
                                    Number 1, for identification.)
            (Witness peruses document.)
            BY MR. MILLER: (Continuing)
            Q Now, Mr. Johnson, I will represent this is a copy
of Attaclmment }7\mathrm{ to LILCO's motion for summary disposition
```

that was filed last November 6th. It, I believe, is a report, cursory report, of the results of the survey that was performed by your company, is that correct?

A It appears to be so, yes.
Q Now, can you tell me or sumarize for me the conclesions that you believe can be drawn from this survey? cond

A I think if $I$ can just quote irom my highlights, 98 percent of those that we interviewed stated they had at least one radio in their home at the time that they were interviewed.

There was a mean of 3.3 radios per household. 97 percent of all respondants, which means 99 percent of those with radios, indicated they have at least one $A M / E M$ or $E M$ only radio.

75 percent of those interviewed stated that they have an $A M / F M$ or $F M$ only radio that can be operated by battery. 92 percent of all households stated they have at least one automobile equipped with an AM/FM or $F M$ only radio, and 17 percent of those interviewed stated they are planning to buy an $A M / F M$ or FM only radio within six months from the time that the interviewing took place.

Q Mr. Johnson, can you tell me why you asked the

Ace.Federal Reporters, Inc.

GW/gw
question regarding the percentage of radios that could be operated by battery?

A When I was retained by Hunton \& Williams, acting I believe on behalf of LILCO, it was mentioned that one of the things that LILCO wanted to find out was how many radios could be operated by battery, and that was thy I included that question.

Q It has been about six months, Mr. Johnson, since your survey was performed. Have you done anything to determine whether the 17 percent of those intcrviewed that were planning at that time to buy an $A M / F M$ or $F M$ only radio have, in fact, done so?

A No, I have not.
Q Mr. Johnson, first page of Johnson Exhibit 1, under methodology, it states that the responses were key punched and 100 percent verified.

Can you tell me what it means to say, "these responses were 100 percent verified?"

A It means that after they were key punched once onto cards, another key punch operator in effect key punched them again. It was done with a key punch machine, with a verifying machine.

Ace.Federal Reporters, In

Q A number of the questions asked in your survey, Mr. Johnson, sought information from the respondants to the best of their ability based upon their memories.

I believe that is a fair statement. Do you agree?

A Based upon their perceived knowledge at the time, yes.

Q For example, when respondants were asked to the best of their ability how many AM or FM radios they owned, you relied upon those persons memories as they were talking on the telephone with your people, is that correct?

A Actually, they weren't asked the question in that way. They were asked, if I might quote, "How many radios do you and your family have in your home, or don't you have any radios at the present time?"

Q That is one of a number of questions that were asked?

A That is correct.
Q And, for example, when -- well, the next question from what you remember, how many of these radios are both A and FM, I guess obviously you were asking people based upon their memory at the time of the interview or the survey,
what they could recall about the radios they owned?
A That is correct.
Q It is fair to say, Mr. Johnson, that the verification procass referred to under the Methodology section of Exhibit 1 has nothing to do with attempting to verify the accuracy of the answers given to your company, is that correct?

A That is correct.
Q Can you explain to re what it means to say that $a^{2}$ the margin of error $a$ the 95 percent conilderce leval for $2 \sqrt{4}$ the responses is about plus o: minus two and one half percent?

A Yes. The margin of error, or sampling error, in this cas is plus or minus two and a half percent, meaning that if instead of interviewing a sample of the households within the ten mile EPZ we had interviewed every household with a tolephone within the EPZ, 19 tines out of 20 , or 95 times out of 100 , the answers we would have gotten from interviewing everybody would not have differed from the answers we got by interviawing this particular sample by more than plus or minus two and a half percent.

Q Mr. Johnson, Exhibit 1 does set forth the
questions that were asked in the survey. That is the second page of the exhibit, is that correct?

A Correct.

Q And then beginnirig on Page 3 to the end of the exhibit, I gather these are the results from the various questions that were asked, is that correct?

A Yes. Actually, my paces aren't numbered, but the third page are the results, yes.

Q And that is the page that has Table 1 up in the upper right hand cornar?

A That is correct.

Q Just let me ask you some questions about this third page, Table 1 , just so I can make sure I understand what these results signify.

Obviously, you have a total of 600 . That is the number of households that were surveyed, correct?

A That is correct.
Q Now, this first question, how many radios do you and your family have in your home, or don't you have any radios at the resent time, the results indicate chat 13 households told you none?

A That is correct.

Q And does that mean that is 2 percent of the sample size?

A That is correct.
Q The numbers 11 and 12 and don't know, you have numbers and then underneath the numbers the letter N . Can you tell me what that means?

A Actually, I believe that is an asterisk, and it just means that the percentage was less than 1 percent.

Q Okay. Now, on the next page, Mr. Johnson, the same question is presented, but this gives you, 1 suppose, some further data about the rasults of that question, correct?

A That is correct.

Q And you indicate, for example, in response ? this first question about how many radios are owned, the mean was 3.3 radios?

A That is correct.
Q Standard deviation, 2.04. Is that a percentage?

A That 2.04 is a percentage yes, as I remember.
Q Can you explain to me what that means?
A It means that 95 times -- I believe what it
means, and I haven't taken statistics in quite a few yoars,

Ace Federal Reporters, Inc it means that 95 times out of 100 , if we had asked everybody that question -- I don't know what it means there.

Q The next column, I gather that is standard error?
A I believe so, yes.
Q Can you tell me what the number .083 means?
A Other than it being a standard error, I cannot.
Q Could you explain to me what the term, "Standard Error," means?

A I do not recall what it means.
Q Mr. Johnson, lets skip over to Table 3, which is the results of the question: "How many of these radios can be operazed by battery?"

Again, you indicate that 600 is the total number of households that were surveyed. Now, for None, I assume this would indicate that 123 households said none could be operated by battery, which is 21 percent?

A That is correct.
Q If you will go to Table 4, Mr. Johson, "How many of these radios are just $A M ?^{\prime \prime}$ is the question that was posed to the respondants.

565 of the 600 persons surveyed responder None, correct, which is 94 percent?

A Actually, we asked how many -- for people who said they had an $A M / F M$ radio, we asked those people how many can be operated by battery. That is Question 3.

We asked for people who said they had radios, we first asked how many are $A M / F M$ radios, and if they had said: "I have six radi and they are all AM/FM," then they would not have been asked that particular question.

MR. MILLER: Mr. Johnson, maybe this will help. Let's mark as Johnson Exhibit 2 what I understand to be a copy of the survey questions that were used in your Company's survey.

Survey Questions is marked as Johnson Deposition Exhibit Number 2, for Identification.) BY MR. MILLER: (Continuing)

Q Can you tell me, Mr. Johnson, is this, in fact, a copy of the questions used by your company?

A It appears to be, yos.
Q Can I fairly assume that the order of the questions is as presented on Exhibit 2?

A Yes.
Q Mr. Johnson, the first question then was: "How
many radios are owned by the family?" correct?

```
A Actually, it was, "How many radios do you and your family have in your home?", I guess.
Q Okay. Maybe I shouldn't paraphrase. I was just trying to do that. And then I assume the next question would be, "From what you remember, how many of these radios are both AM and FM?"
A That is correct.
Q And then the question was asked --
A That is if they indicated they did have radios in
``` their home.

Q Correct. And if they indicated they did not have any radios, then you skipped down to Question 2 of Exhibit 2?

A That is correct.
(8) And then after asking, "How many radios are both AM and FM?", then the next question was, "How many of these radios can be operated by battery?

A If they indicated they had an \(A M / F M\) radio, yes.
Q If a respondent indicated that he or she only had \(\lambda\) / an AM radio, was that question asked about the battery operation?

Ace-Federal Reporters. Inc

A Yes, it was.
Q So, under what circumstances then was the question on battery operation not asked? Only if they indicated they had no radio?

A That is correct.

Q Mr. Johnson, further down in the questions, beginning with Question 2, "Do you and your family own any automobiles?", can you tell me the purpose for asking the questions in your survey regarding automobiles, and radios in automobiles?

A Once again, it was a question requested by the attorneys for LILCO.

Q Your survey results indicate that approximately three percent of the households you surveyed do not have access to an FM or an AM/FM radio, is that correct?

A Could I --
Q Sure. It is not a memory test.
(Witness peruses document.)
Q (Continuing) I think the first page of Exhibit 1
may --
A I don't know if it necessarily states that. It states that 97 percent have access to an AM/FM radio in
their home. There are people who presumably have an AM/FM radio in their automobile.

Q That is where I was going with my question. Did your survey attempt to correlate in any way those persons without \(A M / F M\) or \(F M\) radios in their homes, and those persons without such radios in their automobiles?

A No, it did not.
Q Is it possible, Mr. Johnson that, therefore, roughly 10 percent, or 11 percent, of the respondants to your survey do not have access to in AM/FM or FM radio? What 'ave done there, is I have taken the 8 percent that do not . ave such radio in their automobile, and the 3 percent that do not have such radios in their homes?

A Can you repeat that, please?
Q Is it fair to say that it is possible that approximately 11 percent of the population surveyed by your Company do not have access to an AM/FM or FM radio in either their homes or their cars?

A No, it is not.
Q Can you tell me why it is not fair to mako that statement?

A Because 97 percent have at least an AM/FM or FM
only radio in their home.

Q Okay.
A If we hypothesize, we can hypothesize that 92 percent of 3 percent, or 2.7 percent quite possibly have an AM/FM or FM only radio in their car, so that conceivably 100 percent have an AM/FM or FM -- have access to an AM/FM or FM only radio either in their home or in their car.

Q Okay. So, I guess they answer is, though, that based upon your survey we just really can't tell that. There was no such correlation done?

A Up to this time there has not been, that. is correct.

Q Do you intend to pursue that in a further survey?
A I have not been asked to conduct another survey.
Q Based upon your survey, Mr. Johnson, can we draw any conclusions about those persons that do not own eny radios and those persons that do not own an automobile?

A Based on the analysis that has been done to date, we cannot.

Q Are you suggesting, Mr. Johnson, that it would be possible to somehow analyze in additional detail the results of your survey from last Fall to ascertain that matter?

A It is possible, yes.

Q How would that be done? How could that be done?
A If my client requested me to have it done, I could arrange to have it done.

Q Are you talking about then having to conduct an additional survey or could you take the results of last Fall's survey and ascertain that information?

A We could take the results from last Fall's survey and ascertain that information.

Q And how could that be done?

A If I was requested to do so by my client.
Q No. I am asking you how, in fact, one would go about using the survey results that are presented in Exhibit 1, to ascertain information regarding ownership of automobiles and ownership of radios?

A One could tabulate the results. One could run a table of the results, filtering out those with automobiles and those without automibiles, and those with radios, AM/FM radios, and those without \(A M / E M\) radius.

Q I see. I gather from your response, Mr. Johnson, that what I will characterize as the raw data, the completed actual survey forms ars still in existence,
and you would need to go back to those forms?
A No. This was all key punched, and it would require calling CRC Information Systems, and saying: *Run Question 1 on Question 2, -- run Question 2 on Question 1, filtering out those -- filtering just those who do not have an AM/FM or FM only radio."

It would be a very simply procedure.
Q In fact, does the raw data or the completed survey forms, do they, in fact, still exist?

A Yes, they do.
Q Is there any way, Mr. Johnson, to take the existing survey results to determine the percentage of the EP2 population that own only AM radios, or have no radios?

A Yes.

Q Have you, in fact, done that?
A No, I have not.
Q is it possible for you, looking at the results of these surveys today, to give me an answer to that question? My question would be: "Can you tell me approximately the percentage of the EPZ population, based upon your survey, that would have either only AM radio or no radio?"

A Not looking at these results. It would
obviously be three percent or less.
Q Why do you say it would obviously be 3 percent or less, Mr. Johnson?

A As I understand your question, your question was: "How many of the respondants have only an AM radio, or have no radio at all?", and 97 percent of the respondants have at least one AM/FM or FM only radio.

So, that by definition, 3 percent or less would
fall into that category that you are suggesting.
Q Although, of course, there is the margin of error is going to se out there of two and a half percent one way or the other?

A Yes. I was referring to the survey results.
Q Mr. Johnson, in your survey did you attempt to make any determinations or draw any conclusions regarding persons who 1 istened to \(A M\) versus \(F M\), or \(F M\) versus \(A M\) ?

In other words, issues as to what -- even if a person has an \(A M / F M\) radio -- what that person tends to listen to in terms of \(A M\) band or \(F M\) band?

A No, we did not.
Q Is there any way to take the existing survey results and make that sort of determination?

A No.

Q Is i.t fair to say that that sort of determination would, in fact., require an additional survey?

A Orie way of doing it would be an additional survey, that. is correct.

Q How else could it be done?

A I don't know how minutely the radio rating services have their geographic areas on Long Island, but it is possible thaz an Arbitrompering service could come up \(z\), with some numbers, but I am not aware of any.

Q I gather from your answer you are familiar with Arbitron rating service?

A By name, yes.

Q Do you consider Arbitron reliable source of information regarding listenership?

A I am not qualified to answer that.
Q Mr. Johnson, were any surveys contemplated but not commenced by your company?

A Are you referring to my relationship with Hunton \& Williams and LILCO in general?

Q No. I am talking about this proceeding. I am sure that over the years you have contemplated some surveys that were not commenced.

A I am afraid to say so, yes. But in the case of this situation, this matter under discussion, I am not aware of any surveys that were contemplated but were not commenced.

Q Are you aware of any that were commenced but not completed?

A No, I am not.

2 Was any pretesting done before your survey was conducted?

A No, it was not.
Q Was consideration given to conducting pretesting beforehand?

A No.
Q Mr. Johnson, based upon your survey results, if I were to ask you in your opinion the worst case in terms of the percentage of population that would not have access to AM/FA or FM radios, it would appear that we would be focusing upon persons while the: are in their cars, is that correct?

A I am sorry. Could you repeat that question?
Q If I were to ask you what would be the worst
case in terms of the higher number of persons that would not have access to AM/FM or FM radio, we would be focusing on persons in their automobiles, is that correct?

A If I am understanding your question correctly, 8 percent of the people in automobiles, according to our survey, would not have access to an AM/FM or FM only radio.

Q Whereas only 3 percent if those persons were in their homes?

A That is correct. Now, I am sorry, but I would like to clarify my answer. 8 percent would not have access to an AM/FM or FM only radio that was equipped in the automobile. It is possible they would have access to a portable AM/FM, or FM only radio that they had on them in the car.

Q That they would carry with them in the automobile?

A That is right.
Q Mr. Johnson, in terms of trying to get some numbers in my head, if we assume that the EPZ population is approximately 160,000 persons, is it fair to say that 8 percent of the population as surveyed by your company would be roughly 8 percent of 160,000 persons?

A No, it is not.

Q Is it impossible to reach any conclusions about the numbers of persons that could be without AM/FM or FM radios based upon your survey results?

A It is possible, yes.
Q How would you do that?
A We sampled households. We didn't sample individuals. If you could tell me how many households -- if one knew how many households there were in the EPZ, one could make projections as to how many households for whatever one wanted to project.

Q To reach any conclusion about the number of persons without AM/FM or FM radios, would one have to conduct another survey?

A No.
Q Okay. Would one simply ascertain the data reguarding number of households within the EPZ and then use your perceritages from your survey results to determine the number of persons without radios?

A One could do that, yes.
Q Mr. Johnson, the survey you conducted was a random sampling survey, is that correct?

A It was a random survey, yes.
Q A statistically valid random sample was taken?
A That is correct.

Q Is it fair to say the persons surveyed were, therefore, evenly distributed throughout the EPZ in terms of their residences?

A The persons surveyed were distributed across the EPZ in proportion to the number of people living in the various zones within the EPZ.

I believe there are 19 zones within the EPZ, geographic zones.

Q So, Mr. Johnson, is it fair to say that those zones with a higher population, more inquiries were made to the respondants in that zone than to the less populated zones?

A That is correct. That is what I was trying to say.

Q It would be true that there were questions asked of some persons, though, from each and every EPZ zone, is that correct?

A Yes. Each EPZ zone that had households. I am not aware of an EPZ zone without a household.

Ace-Federal Reporters, Inc

Q Was any weighting done of the survey results?
A No weighting was done of the survey results.
Q Was consideration given to weighting the results?
A No. Never.
Q Were any persons outside the EPZ surveyed?
A To the best of my knowledge, no. It is always theoretically possible in something like this that somebody inadvertently dialed a wrong telephone number.

Q Was consideration given to surveying persons outside the EPZ?

A No.
Q Did your survey attempt to compile any economic data regarding the respondants?

A Mo, it did not.
Q Did you gather any sociological data regarding the re'spondants at all?

A No, we did not.
Q Mr. Johnson, I gather from the results of the survey, as I read them on Exhibit 1, it was not attempted to determine whether all radios that were owned, whether AM or FM, or \(A M / F M\) were in fact in working order, or could be heard well, or anything of that iature? It was simply a
question of how many radios do you own?

A That is correct.

Q Do you have any information regarding the numbers of persons within the EPZ that have their radios hooked or connected to the rooftop antenna?

A No, I do not.

Q Are you aware of iny information regarding the typical orientation of antennas within the EPZ, or Long Is land?

A No, I am not.

Q Mr. Johnson, have you ever surveyed any other population with respect to radio ownership, or the listenership habits of the population? Radio listenership habits?

A Yes.
Q Could you generally describe for me that survey, or surveys? I don't really need the client name.

A I have done a considerable number of surveys for various clients where we attempted to ascertain which radio stations, various sample type populations listen to, and when they listen to these stations.

Q These were surveys done for the radio stations?

A No. These were done for specific clients.

Q Clients that were considering whether to advertise with certain stations?

A That is correct.
Q Can you draw any general conclusions regarding listenership habits with respect to \(A M\) versus \(F M\) of the general population based upon the surveys you have conducted in the past?

A There are none that come to mind right now.
Q Are you aware of any other information regarding listenership habits of general population with respect to AM versus FM?

A No, I not.
Q Mr. Johnson, were any steps taken in your survey to ensure that a household was not telephoned more than once?

A Yes.
Q What were those steps?
A When the sample was developed, it was developed, as I believe it is indicated here, on an every nth basis within the various geographic areas in the EPZ.

As I recall, the listing was by household so
that we would take the first household in a particular geographic area, and then the ninch household, and the 18 th household, and the 27 th household, or whatever the interval was determined to be for each geograp'ic area.

So, in that way it would have been very difficult for the same household to have been included twice in the survey.

Q Mr. Johnson, at this time do you have any plans to do any additional work with respect to these EBS issues other than, of course, to prepare your testimony that will be presented at trial?

A At this time I do not.
Q If I were to request the completed survey forms, Mr. Johnson, approximately how much paper are we talking about?

A Approximately 600 sheets of paper this size.

Q \(\quad 600\) sheets that would look like Exhibit 2, but
filled in?

A Yeah, and it would be blue instead of white colored.

Q Have you done any surveys that involved any of the stations within LILCO's present EBS network?

A Yes.

Q Are you at this time aware of the ten stations that are at issue in this proceeding?

A No, I am not, but -- I am sorry, I said yes because -- my answer stands, yes, I have.

Q Can you tell me what stations or stations you have done work for?

A I have not done any work for specific stations.
Q Is this work again that you have done for potential advertisers of the stations involved?

A That is correct.
Q And I gather, Mr. Johnson, based upon this past work you drew some conclusions about the percentage of the population that, in fact, listen to the stations?

A Yes.
Q Was the population at issue in the surveys any portion of the population around the Shoreham plant, the EP2?

A Quite possibly.
Q Can you tell me how many stations of the cen stations in LILCO's network you have done work that involved these issues of listenership of the public?

Ace.Federal Reporters, Inc

A I don't know the ten stations. I have conducted several surveys in Suffolk County, and the surrounding area asking about radio listenership, and I would assume that the stations that you refer to were stations that were mentioned by respondants.

Q If I gave you the listing of the ten radio stations, would you be able to tell me whether any, in fact, have been involved in your past surveys?

A Not right now, no.
Q Do you know if WPLR, which is an FM Station based in New Haven, Connecticut, is a station tnat you have done any work for in the past, or whether it has been involved in any surveys you have conducted in the past?

A As I said, I have not done any work for WPLR. In regard to certain potential advertisers of radio stations in Suffolk County, I have asked some questions and they might have been included, or they might not have been included in the responses.

Q So, I gather, Mr. Johnson, what you have done in the past with respect to certain businesses within Suffolk County, you have gone out and polled or surveyed the population about which radio stations they generally listen
to so that those businesses, your clients, can make better determinations about whether to advertise with certain stations?

A In this case they weren't businesses, but yes, so my clients could make determinations.

Q About whether to advertise or not?
A That is right.
Q How many surveys do you believe in the past you have conducted that involved the stations that are at issue in this proceeding?

A I don't know which stations are at issue, but over the past few years I have conducted at least two surveys of radio listening on Long Island.

Q Would those surveys, Mr. Johnson, provide any insight into whether persons generaliy listened to \(A M\) versus FM?

A I don't believe so.
Q Well, let me just present a hypothetical to you.
If the results of your survey showed that 43 percent of those surveyed listened to various stations that are AM only stations, wouldn't that give you some insight into the fact that that segment of the population listened to AM?

A If the questions were asked in such a way to ascertain that answer, yes.

My questions were not asked in a fashion that wou' i ascertain that particular answer.

Q Are your questions more in terms of: Do you listen to particular stations?

A My questions are generally which stations do you usually listen to for the news. Questions along that line.

Q How extensive is the data that has been compiled with respect to these two surveys? How much paper are we talking about?

A Fifteen times \(1,200--18,000\), and 12 times 1,000 - 12,000.

Q Too much paper. What about the results? Have those results been compiled? I assume they have been.

A Yes, they have.
Q And I am assuming that the results of the survey group we are discussing would be relatively few number of pages?

A Yes.
Q And is it fair to say that the results from these surveys would generally tell you within Suffolk County
which stations are listened to for the news, which stations are listened to for sporting events, which stations are listened to for music listening pleasure, et cetera?

A No.
Q Could you describe the results of the surveys, and how those results would be presented?

A Well, first of all, the sample that we are sampling in this case are registered voters who are not -residents are not necessarily registered voters.

So, I would not draw any conclusions about the population at large in Suffolk County on the basis of these results.

Q Have you done any surveys in the past, Mr. Johnson, that you believe could be used to draw conclusions about the general population within Suffolk Counts or the EPZ?

A Yes.
Q And those surveys involved in some way radio stations on tong Island?

A No.

Q Okay, With respect to surveys that you have conducted in the past that you believe could be used to
draw general conclusions about the general population within the EPZ or Suffolk County, have any involved radio stations or issues regu:ding listoiarship habits of the general population? Listeners in nabits with respect to radio stations?

A Not that I can reca)l.

Q So, the surveys you have conducted in the past have involved, I gather, political candidates and their desire to ascertain where they should put their campaign funds in terms of getting the message across to the public?

A That is some of it. I also do work for the New York Power Authority, and obviously they weren't concerned about political candidates.

Q The survey for the New York Power Authority, did that involve in any way the Shoreham plant.

A I have done a survey for the New York Power Authority where Shoreham was mentioned.

Q Can you tell me the context in which Shoreham was mentioned?

A This was part of a statewide surver that was conducted for the power authority, I believe, in 1980 or 181.

Ace.Federal Reporters, Inc

Q Did it involve in any way the radio stations in or around the Shoreham EPZ?

A I don't believe it did. MR. MILLER: I don't believe I have any further questions, Mr. Johnson. I thank you for your time. THE WITNESS: Thank you. MR. SISK: Okay. Very well. (Whereupon, the taking of the deposition concluded at 11:00 arm., this same day.)
 WILLIAM G. JOHNSON


Ace-Federal Reporters, Inc.

\section*{CERTIFICATE OF NOTARY PUBLIC}

I, Garrett J. Walsh, Jr., the officer before whom the foregoing deposition was taken, do hereby certify that. the witness whose tstimony appears in the foregoing deposition was duly sworn by me; that the testimony of said witness was taken by me and thereafter reduced to typewriting by me or under \(m\) direction, that said deposition is a true record of the testimony given by the witness; that I am neither counsel for, related to nor employed by any of the parties to the aotion in which this deposition was taken; and further, that a relative or employee of any attorney or counsel employed by the parties hereto, nor financially or otherwise interested in the outcome of the action.

\author{
GARRETT J. WALSH, JR. Notary Public in and for the Commonwealth of Virginia at La:ge My Commission expires: January 9, 1989
}

\section*{DEPOSITION EXHIBIT}

\section*{Methodology}

A total of 600 randomly selected heads of households within the 10 mile EPZ around Shoreham were interviewed by telephone between September 30, 1987 and October 4, 1987.

The sample was selected on an every nth basis from lists of all residents with home telephone numbers living within the \(E P Z\).

Interviewing was conducted by Nktg., Inc., a nationally recognized survey research interviewing firm with headquarters in East Islip, New York.

Responses were key-punched, \(100 \%\) verified, and tabulated by CRC Information Systems, Inc. of New York, New York. A copy of the computer tabulations is enclosed.

The margin of error (a: the \(95 \%\) confidence level) for the responses is about \(\pm 2 \frac{1}{2} 8\).

\section*{Highlights}

988 of those interviewed have at least one radio in their home at the present time. There is a mean of 3.30 radios per household.
\(97 \%\) of all respondents ( \(99 \%\) of those with radios) have at least one \(A M / F M\) or \(F M\) only radio.

758 of those interviewed have an AM/FM or \(F M\) only radio that can be operated by battery.

928 of all households have at least one automobile equipped with an AM/FM or FM only radio.

178 of those interviewed are planning to buy an AM/FN or FM only radio within the next six months.
 OMLY RADIO DURING THE REXT BIX HONTHS OR SO?

CAPPAICN RESEARCH, IMC. EPZ RAOIO STLDY
Q. 1 HOU NOWY RADIOS 00 YOU AND YOUR FAMILY HANE IN YOUR HOTE, OR OON'T YOU HAVE ANY RADIOS AT THE PRESENT TITE? TOTAL
TOTAL RESPONDENTS 600
MONE \(\quad\)\begin{tabular}{l}
13 \\
2.
\end{tabular}

1
\[
15 .
\]

2
135
3

6
.

TABLE \(1 / 2\)


CATPAICN RESEARCM, INC. EPZ RAOIO STUOY
Q. 1 FROM LHAT YOU REREMEER, HOU MANY OF THESE RAOIOS ARE BOTH AN AND FM?
CSE ROIOS NEE BOTH WI ND FT?

CAIPAICN RESEARCH, INC. EPZ RADIO STUOY
Q. 1 FRON LWAT YOU RERETEER, HON HAWY OF THESE RADIOS ARE BOTH AN AND FTT

Q. 1 hDU HAW OF THESE RNOIOS CAN BE OPERA ED BY BATTERY?

TOTAL
total respondents
600
hoe
123
21.
1
190
32.

1 143
3
24.

4
11.

27
5.
5
13.
2.

6
1.

7
\(\stackrel{1}{2}\)
8
2
9
1.

10
11
0
12
0
DON'T MONOU
1.
hot Eligible


\begin{tabular}{lll} 
뇬 & 8 & Sलm \\
\hline
\end{tabular}

TABLE 5





骎
EPZ RADIO STUOY
Q. 1 Ho nou nuw of rave rantos hee ust fm
TOTN RESPOMDENTS





TABLE 8

CADPAICN RESEAROS. INC. EPZ RADIO STUOY
Q. 1 toin incidece of caning an fr reoto
TOTA RESPONDETS


\section*{AICN RESEARCH. INC. EDZ RADIO STUDY
Q. 1 TOTAL IMCIDEICE OF OUNING AN FI RAOIO}
\begin{tabular}{lr} 
\\
& TOTAL \\
TOTA. RESPONOENTS & 600 \\
& \\
& \\
IEAW & 3.25 \\
STD. DEV. & 2.03 \\
STD. ERR. & -083
\end{tabular}



己゙シ
0 OHE
\({ }^{6}\)

CAPAICN RESEARCH, INC. EPZ RADIO STUOY

DON'T HONU
MOT ELIGIBLE
ev:
鲅官




Ballo， 5 其 ame \(1 /\) I work for the netlonsd eurvey
 themale／feale head of your housin theidr homes and automoblles．Are you
（IT YES）PROCEED WITH INTERVIEN
（IF WO）May I plecse speak to the aile or feasis head of your household？
1．How many radios do you and your fasily have in your hoae，or don＇t you
have any radios it the present tiae？
\[
\left[22.2^{\circ}\right.
\]
（2） 2
（1） 3
［4］
（b） 5
Other（pleafe spectify） \(\qquad\) ［X］DON＇T XONOW［＇？WOKE（SXEP TO Q．8）
Froa what you remember，how many of these radios ans bots AM and \(F\) ？
 Other（please specify） \(\qquad\) ［x］DON＇T XONOW （Y）Mass
How sany of these radios can be operated by bettergile 2
［1］ 1
（2） 2
［3］ 1 （4）
［ 3 ）
（0） 10

Other（please ipecify） \(\qquad\)〔x］DON＇ 7 xolcy
［Y］mone


How eany of these radios are just Ah？


And how wany of these can be operated by bettery？


And how many of your radios are just Th ？

Uther（please opecify） \(\qquad\) （x）DON＇T XONOW
［Y］NOME
2．Do you and your family own any automob11es？
（1）YES
（2）NO（\＄KIP TO Q．2）
（IF YES）How many of these have oar radfos？
［1］ 1
（2） 2
（3） 8
（4） 4
OTKER（please specify） \(\qquad\)17

> 〔8〕 DON'T KNOW (7〕 MONE (8XIP TO Q, 8)

How wany of these car radios are both \(N K\) and \(m\) ？
［1］ 1
（2） 2
［3］ 3
［4］ 4
OTKIK（please speeify） \(\qquad\)
（B）DON＇T XONOW
［1］Noxis

And how many are just NM？
（1） 12\()_{2}\)
（8） 1
（4） 4
OTHEA（PLEASE 8FBCITY）
10
［8］DON＇T XHOW
［1］Moxx
）Just one more quesilicn．．Do you think you or your faaliy．wil2 be buylag
either an \(A M / F M\) radio or an \(M\) only radio during the next ifx aentha or io？
（1）YZ5
（2）NO
（1）DOM＇T XONOW

Thank you very much，，have a real nlee day／evaning．```

