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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

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

LILCO'S BRIEF IN OPPOSITION TO
SUFFOLK COUNTY'S MOTION TO TERMINATE
THIS PROCEEDING AND FOR CERTIFICATION

March 18, 1983

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Volume One of Two

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LILCO, March 18, 1983

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I. INTRODUCTION

This brief will respond to Suffolk County's February 23 motion^{1/} to terminate this licensing proceeding and "cease further consideration of LILCO's OL application." The reason for the County's motion is that the County has resolved not to

^{1/} "Suffolk County's Motion to Terminate the Shoreham Operating License Proceeding," Feb. 23, 1983. The motion was accompanied by a "Motion for Certification," also dated February 23, asking the Board to certify the motion promptly to the Commission without further considering the issues or submitting them to the Appeal Board. By direction of the Board, the County filed a supplemental brief (SC Br.) in support of the motion. "Supplemental Brief of Suffolk County in Support of the County's Motion to Terminate the Shoreham Operating License Proceeding and the County's Motion for Certification," March 4, 1983.

prepare a radiological emergency plan and, in the County's view, the NRC regulations do not permit the agency to issue an operating license, under any circumstances whatsoever, unless the County is participating in the emergency planning process.

The NRC regulations cannot possibly mean what the County says they mean, because if they did, they would render the NRC regulatory scheme arbitrary. This very case illustrates just how arbitrary it would be, for the County's position on emergency planning, on which the County believes NRC operating licenses should depend, has shifted radically and unpredictably over time.

Had the Board been present at the time of the limited appearances in the Shoreham construction permit proceeding on September 21, 1970, it would have heard then-Suffolk County Executive Dennison say to the ASLB:

I urge you, as County Executive, to grant immediate licensing for construction of this nuclear power facility as proposed at Shoreham.

CP Tr. 216 (Sept. 21, 1970). Emergency planning was addressed in the CP proceeding, and the ASLB's decision shows that "local authorities" were consulted:

The Applicant has outlined its plan for coping with emergencies and has conferred with New York State and local authorities with respect to them. The Board finds the Applicant's emergency

planning adequate for the construction permit stage.

Long Island Lighting Company (Shoreham Nuclear Power Station), LBP-73-13, 6 AEC 71, 285 (1972) (footnotes omitted).

As the "Background" section of this brief shows, there followed some 10 years of cooperation between LILCO and Suffolk County. A County "General Radiation Emergency Plan" was approved by County Executive John Klein in 1978 and, in response to the Three Mile Island accident, Suffolk County signed a contract in September 1981 promising to prepare "a County Radiological Emergency Response Plan, as required by Federal Regulations." The County Department of Planning represented in the contract that it was familiar with the applicable federal regulations and that it believed it could develop a plan that complied with them. Work on the new plan proceeded apace, with LILCO and the County having frequent meetings and phone conversations over the plan.

But suddenly the County officials' attitude changed. In February last year the County repudiated the contract with LILCO and the work of its Department of Planning. For several months thereafter it went through the process of producing a draft emergency plan all its own, refusing advice, help, or other participation by LILCO and declining to involve the State

of New York in the process. During this period LILCO tried repeatedly to resume joint planning with the County, as when a LILCO Vice President wrote the County on September 17, 1982, saying among other things:

Let me close by repeating that much of the work LILCO has done on the offsite plan, as well as the resources and experience of LILCO employees and consultants, would be of use to the County in developing its plan. LILCO takes no pleasure in working on emergency planning without the County. I urge you to resume joint planning with LILCO as soon as possible.^{2/}

To no avail. Just last month, following hearings by the Suffolk County Legislature, County Executive Peter Cohalan issued a statement that "the unique local conditions of Long Island make it impossible to protect the public safety if there were a serious accident at the Shoreham plant," that "Shoreham should never operate," and that he was "prepared to lead the fight in both Washington and Albany" against Shoreham. The following day the County legislature resolved:

that since no local radiological emergency response plan for a serious nuclear accident at Shoreham will protect the health, welfare, and safety of Suffolk County residents, and since the preparation and implementation of any such plan

^{2/} Letter from Matthew C. Cordaro to Chief Deputy County Executive John C. Gallagher, Sept. 17, 1982.

would be misleading to the public by indicating to County residents that their health, welfare, and safety are being protected when, in fact, such is not the case, the County's radiological emergency planning process is hereby terminated, and no local radiological emergency plan for response to an accident at the Shoreham plant shall be adopted or implemented

Thus did a 12-year record of cooperation between LILCO and the County change virtually overnight. Soon thereafter the County presented the Board with its motion to terminate and the novel legal theory that this NRC licensing proceeding cannot go forward without the County's consent.

It is important that the Board understand just how extreme this legal theory really is. Although the County's argument sometimes mixes fact and law, suggesting that it is an "undisputed fact" that "necessary emergency preparedness to respond to a nuclear accident at Shoreham does not and will not exist" (see SC Motion to Terminate 1, 4), the question whether health and safety are protected plays no part in the County's theory.

The fact is that Suffolk County -- at present -- refuses to engage in emergency planning. LILCO therefore requests an opportunity to prove to this Board that emergency planning can be done, and the public adequately protected, without the

County's help. The County cannot claim, for the purposes of its motion, that the public cannot be protected without its cooperation, for that is a question of fact. Suffolk County is saying rather that LILCO should not even be given the opportunity to present evidence that the public can be protected. Suffolk County is saying that who prepares an emergency plan is more important than whether the plan will protect the public. Suffolk County is saying that the NRC's regulations absolutely require this result.

Suffolk County is also saying that whenever a local government decides that the radiological risk from a nuclear plant is unacceptable, or that the plant is unacceptable for any other reason, it can shut down the plant by simply refusing to participate in emergency planning. And there is no basis for limiting this veto power to new plants waiting to come on line; the County's theory applies to already-operating plants as well. If the County's theory were to prevail, then the debate over nuclear safety would shift immediately from the NRC to local legislatures, city councils, and boards of supervisors across the country, where the fate of nuclear reactors would be decided under short-range political pressures, with the vote changing each time the political winds shifted. There should be no illusion that these decisions would be made on the

evidence; the Suffolk County legislators heard from three different groups of experts but rejected LILCO's witnesses', the Brookhaven Laboratory scientists' and the County's own consultants' work, even as they earlier rejected the work of their Department of Planning. The next county to decide the issue might not bother with hearings at all.

The foregoing is not fantasy; it represents the clear and unavoidable consequences of accepting the County's theory of what the NRC emergency planning regulations mean. Since these consequences are intolerable, they are good reason to believe the Commission did not intend the County's interpretation when it promulgated the regulations.

In addition to this fundamental reason, there are five other reasons why the County is wrong as a matter of law. First, neither the regulations nor the rulemaking record underlying them says what the County says the regulations mean; the regulation, 10 C.F.R. § 50.47(a)(2), speaks of "local plans," not "local government plans." A local plan is a plan for a locality, and LILCO has one. If the Commission had meant § 50.47(a)(2) to deal only with plans endorsed by local governments, it would have said "plans of local governmental entities" as it did in a different regulation, § 50.33(g). Indeed, the proposed versions of the regulations § 50.47 and

§ 50.54 were changed when they became final to delete references to § 50.33(g) and to plans of "governmental entities."

Also, nowhere in the rulemaking record have we found (nor has the County found, judging from its brief) anyone saying that a local government plan is a prerequisite for an NRC license or that a license may not be issued unless there is a plan approved by a local government. Nor has any court, NRC Commissioner, or Administrative Judge said such a thing. It is reasonable to conclude that if this were meant to be the law someone would have said so.

Second, the purpose of the NRC regulations at issue is contrary to the County's theory, and regulations are supposed to be construed so as to effect their purpose. The purpose of the regulations is to produce sound emergency planning; the purpose of Suffolk County is to do no emergency planning at all. The purpose of the regulations is to assure safely-operating nuclear plants; the purpose of Suffolk County is to shut down Shoreham.

Third, the regulations provide a number of very broad exceptions that allow a reactor to operate even if all the regulatory standards are not met so long as the public can be shown to be adequately protected. The Commission has directed,

both in the rulemaking record and in the Indian Point proceeding, that "all factors" are to be examined before deciding whether a plant may operate in the face of deficiencies. The County, on the other hand, wants the inquiry to stop and the facts never to be heard.

Fourth, as noted above, the County's theory would give local governments a veto power over nearby nuclear plants -- not the "de facto" veto mentioned in an NRC Staff document cited by the County, but a de jure veto. (It is not entirely clear which governments the County thinks have this veto; counties and states would certainly have it, and some of the County's argument implies that a plant could be vetoed by any city, town, or village within 10 or 20 miles of the plant.) This veto, if granted by the NRC, would violate § 271 and § 274 of the Atomic Energy Act and contradict over 10 years of cases holding that states and localities may not regulate the radiological health and safety aspects of nuclear power power.

Fifth, there is no conceivable policy cognizable under the Atomic Energy Act to be served by having a regulation that means what the County says it means. Since the County's argument is that a local veto stops the reactor regardless of whether health and safety is protected, health and safety cannot be a reason for construing the regulation in the County's

favor. The County suggests no reason why the NRC would want to give local governments such a veto.

In short, all LILCO is asking at this point is a chance to present evidence that its own offsite plan will work. What Suffolk County is asking is that the Board deny LILCO that opportunity and construe the NRC regulations so as to give local governments the ultimate authority to deny licenses for nuclear plants. The County asks the Board to stand down, after a decade of construction, almost seven years of this operating license proceeding, and almost a year of evidentiary hearings before this Board, and concede to the County the right to make the ultimate decision in this case. This result, LILCO submits, is incompatible with the Atomic Energy Act and the Commission's regulations. It is incompatible as well with public policy, good sense, and the integrity of the NRC licensing process.

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ATTACHMENTS

1. Letter from Legislator Giese to constituent Schechner, dated January 19, 1983.
2. Memorandum of Understanding between LILCO and Suffolk County dated December 28, 1979, with transmittal letter dated December 31, 1979.
3. Amended Emergency Planning Contract between LILCO and Suffolk County, dated September 1981.
4. Excerpts from Deposition of Robert C. Meunkle taken on August 6 and 16, 1982.
5. Excerpts from Deposition of Laura L. Palmer taken on August 16, 1982.
6. Letter from Dr. Cordaro to Dr. Lee Koppelman, dated March 17, 1982.
7. Letter from Chief Deputy County Executive Gallagher to Dr. Cordaro, dated May 17, 1982.
8. Report of the Suffolk County Legislature (draft) dated February 17, 1983 from Special Counsel Michael Ward
9. Report of Suffolk County Executive Peter F. Cohalan Concerning Radiological Preparedness In Suffolk County, dated February 16, 1983.
10. February 17, 1983 statement by Suffolk County Executive Peter F. Cohalan.
11. Letter from Dr. Cordaro to Commissioner William Hennessey dated May 10, 1982, transmitting the LILCO off-site plan.
12. Letter to Suffolk County Attorney David J. Gilmartin from the Chief of Suffolk County's District Attorney Special Investigatory Unit, dated November 17, 1982.

13. Letter from Dr. Cordaro to Chief Deputy County Executive Gallagher, dated September 17, 1982.
14. Letter from LILCO's counsel to County counsel, dated August 7, 1982.
15. Letter from Dr. Cordaro to Deputy County Executive Frank Jones, dated September 29, 1982.
16. Letter from Dr. Cordaro to Chief Deputy County Executive Gallagher, dated October 4, 1982.
17. Letter from W. G. Schiffmacher to Deputy County Executive Frank Jones, dated October 7, 1982.

III. BACKGROUND

Set out below is the history of emergency planning for Shoreham leading up to the County's motion to terminate. This history is relevant for several reasons.

First, the Background shows that Suffolk County supported the construction of Shoreham at the beginning and participated in emergency planning for the plant for some 12 years, changing its position to opposition only recently, and only after almost a year of hearings by the Board. This history suggests that it is not an "undisputed fact" that there will never be a County emergency plan, because the County may change its mind again. It also suggests that equitable principles favor LILCO's position over the County's.

Second, the Background shows that, contrary to the County's assertions, it is not the case that no offsite planning exists. Much offsite planning for Shoreham has already been accomplished. Besides the 1978 pre-TMI plan mentioned above, the most recent draft plan developed by LILCO and the County was completed in 1982 by LILCO (the "LILCO offsite plan"), after County planners were ordered to discontinue work on it. This plan was submitted to the New York State Disaster Preparedness Commission (DPC) Staff for review against emergency planning regulations. The DPC Staff requested certain changes, which LILCO made. On a second review, the plan passed muster.

Third, the Background shows that the Suffolk County government, which seeks for itself the power to veto nuclear power plants on grounds of radiation health and safety, is not sufficiently knowledgeable to do so. The County's conclusion that emergency planning is impossible is based upon the latest, unilateral planning effort by the County, consisting of nine months' work by outside consultants at a cost of \$600,000 and resulting in a document that has no implementing procedures, no provisions integrating with the State and LILCO onsite plans, and no chance of being complete without a significant amount of additional work. This document is touted by the County as "the

best possible plan that could be developed." It is not a plan at all. In addition, nowhere in the draft County plan did the County's consultants state that emergency planning was impossible for Suffolk County.

It fell to the Suffolk County Legislature to examine the document and pronounce it good (or otherwise). The Legislature finds itself "uniquely qualified" for the task. Draft "Report of the Suffolk County Legislature," dated February 17, 1983, at 1 (Attachment 8). In truth, the Legislature showed during its hearings on the plan that it was unprepared on the subject of nuclear power, and that, due to political machinations, it had no intention of approving any offsite plan for Shoreham, under the misguided notion that without a County-approved plan, the NRC would not allow Shoreham to operate. One legislator's question posed to LILCO during the Legislative hearings on emergency planning is indicative of the lack of knowledge of the group:

What type of fuel [is used at Shoreham]?
I have a car and I pull into the gas station, and there is a high octane, low octane, regular, unleaded. What type of fuel?

This question might be reasonable for a person beginning to educate himself about nuclear plants; most people do not have detailed knowledge about the technical aspects of nuclear

power. But unlike its more accustomed investigative and political role, the Legislature here set itself up as a fact-finding body on the draft County plan. It is reasonable, therefore, to expect that the County legislators would have acquired more than a passing knowledge of emergency planning for nuclear power plants. The record shows they did not. (It is unclear whether their lack of knowledge resulted from their staff or the County Executive's office not providing the proper information, their counsel and consultants not calling attention to it, their not reading it, or a combination of these factors.)

Not only was the Legislature unprepared to deal with the issue of emergency planning for a nuclear power plant, it was apparently not inclined to deal with it fairly. Another legislator stated in a letter, addressed to one of his constituents and entered in the public record, that "the reasoning behind the hearings for a so-called plan, at the present time, is to use the facts presented as the basis for a future law suit." See Attachment 1.

The County relies upon the Legislature's fact-finding to conclude that emergency planning is impossible for Shoreham. That conclusion is not based on fact.

A. As Early as the Construction Permit Stage, Suffolk County Endorsed Shoreham and Cooperated in Emergency Planning

The construction permit for the Shoreham Nuclear Power Station was granted on April 12, 1973, five years after the application was filed, and following contested hearings that included challenges to the choice of the site, the feasibility of emergency planning, and accident probabilities. See Long Island Lighting Company (Shoreham Nuclear Power Station), LBP-73-13, 6 AEC 271, 275-76, 278, 285, 29, 99 (1972). At that time Suffolk County was not a party to the proceeding, but H. Lee Dennison, County Executive, made a limited appearance before the Licensing Board in 1970 to urge that the Board grant a construction permit for Shoreham:

I am here in representation of the 1,100,000 people of the County of Suffolk, and I speak as the administrative head of the county government, as the county budget officer; and I have a certain basic responsibility for the health, safety and well-being of the people of the county, a concern with adequate and safe transportation, police, finances, the general economy, human relationships, public health and welfare, adequate and clear fresh water, and surely the assurance of the quality of service and consumer price for light and power.

.

Now there isn't any other source for energy in this area. We can't depend upon the metropolitan region or New York State or the St. Lawrence powerplants. We must begin to be self-sufficient on our own because we are an island.

. . . .

I urge you, Mr. Chairman, as County Executive, to grant immediate licensing for construction of this nuclear power facility as proposed at Shoreham.

CP Tr. 209, 211-12, 216.

The provisions of the 1971 version of 10 CFR Part 50, Appendix E.II, required that the PSAR contain sufficient information to assure compatibility of the facility design and site with emergency planning requirements.^{3/} The NRC Staff found

^{3/} The old Appendix E provided in pertinent part:

The Preliminary Safety Analysis Report shall contain sufficient information to assure the compatibility of proposed emergency plans with facility design features, site layout, and site location with respect to such considerations as access routes, surrounding population distributions, and land use.

As a minimum, the following items shall be described:

. . . .

B. Contacts and arrangements made or to be made with local, State and Federal governmental agencies with responsibility for coping with emergencies

that Shoreham satisfied the requirements of Appendix E. CP Tr. 5969-73. In addition, intervenor Lloyd Harbor Study Group (LHSG) cross-examined during the construction permit hearings regarding LILCO's development of an emergency plan. Testimony showed that LILCO had outlined generally its plans for coping with emergencies in the PSAR (PSAR at XIII-4-1 to -3) and had discussed emergency planning with the Riverhead Police Department, Suffolk County Police Department, Suffolk County Health Department, Suffolk County Medical Society, and New York State Authorities. CP Tr. 2299, 2511-12.

In its initial decision, the Licensing Board rejected LHSG's assertion that LILCO was unable to achieve adequate emergency planning for Shoreham, pointing out that "[t]he applicant has outlined its plan for coping with emergencies and has conferred with New York State and local authorities with respect to them." 6 AEC at 285 (footnote omitted) (emphasis added). The Appeal Board concurred. Long Island Lighting Company (Shoreham Nuclear Power Station), ALAB-156, 6 AEC 831, 851 (1973).

Thus, the record shows that (1) the County supported the application for a construction permit for Shoreham; (2) emergency planning for Shoreham was an issue from the beginning of this proceeding; (3) the County agreed that planning was

possible for Shoreham and engaged in discussions with LILCO regarding emergency planning before the construction permit for Shoreham was issued; and (4) intervenor LHSG's assertion in the CP proceeding that adequate emergency planning was not possible for Shoreham was rejected by the Board, based in part on the cooperation exhibited by LILCO and local authorities regarding emergency planning. This cooperation between the County and LILCO was to continue for over a decade.

B. The Continued Cooperation between LILCO and Suffolk County on Emergency Planning

Following the issuance of the Shoreham construction permit the Suffolk County Department of Emergency Preparedness was directed by Executive Order in February 1973 to develop a "Response Plan -- Specific Operating Procedures For Major Radiation Incidents." In early 1975 the State, the County, and LILCO met to define the emergency planning roles and responsibilities of each body. This was the first of many sessions to support the development of the Suffolk County response plan.

In 1977 Mr. Norman Kelly, County Emergency Preparedness Director, was given overall responsibility for the offsite emergency plan, and the Suffolk County Department of

Transportation was directed to develop an evacuation plan. After numerous working-level meetings and discussions between the County and LILCO, Suffolk County's "General Radiation Emergency Plan" was approved by County Executive John Klein on August 30, 1978. It was reviewed, and eventually accepted, by the New York State Office of Disaster Preparedness.

In late 1978 the Environmental Protection Agency and the Nuclear Regulatory Commission issued NUREG-0396. It recommended that emergency planning be expanded to address Class 9 accidents that might result in the need to take emergency action out to 10 miles from the plant. In response to NUREG-0396, LILCO and certain State and County officials began updating Shoreham's evacuation plan to provide for an emergency response out to 10 miles.

Following the accident at Three Mile Island in 1979, the NRC promulgated new emergency planning regulations, which are at issue now. As a result, LILCO and County Executive John Klein signed a "Memorandum of Understanding" on December 28, 1979, outlining the revised responsibilities of the Company and the County in emergency planning. Attachment 2. A cover letter to the Memorandum indicated that County Executive-elect Peter Cohalan had approved the terms of the agreement. Id.

To respond to the extensive post-TMI changes in the NRC's emergency planning requirements, LILCO began discussions with private consulting firms early in 1980 with an eye toward hiring outside consultants to assist the County and LILCO in updating the existing plan. Throughout 1980 planning discussions with Suffolk County officials continued. County emergency planning personnel inspected the Shoreham site on February 28, 1980. LILCO met with 60 representatives of Suffolk County departments in March and submitted nine volumes of material to the County Legislature's Health Committee in conjunction with legislative hearings on nuclear power. The County continued discussions with private consulting firms. By fall, the County received a proposal to prepare a plan from EDS Nuclear Inc. Chief Deputy County Executive John Gallagher met with LILCO representatives in September and December to discuss the proposal.

In February 1981 the County concluded that it could develop the revised emergency response plan on its own, since County personnel had already worked on the original plan and were familiar with local conditions. LILCO Vice President Dr. Matthew C. Cordaro, Suffolk County Planning Department Director Dr. Lee Koppelman, and Mr. Gallagher signed a contract on March 15, 1981, calling for the County to produce a revised

radiological response plan within six months at a cost of \$245,000 to be paid by LILCO. The Suffolk County Legislature, however, rejected the initial contract because it had not been consulted on the terms. In September 1981 an amended contract with substantially the same terms was submitted to the County Legislature and accepted (Attachment 3), and LILCO paid the Suffolk County Planning Department \$150,000 as the first installment on the contract. The balance of the contract (\$95,000) was due upon completion of the plan on March 18, 1982.

The contract is described as being between LILCO "and the County of Suffolk, acting through its Department of Planning." Contract at 1. It further states that "[t]he DEPARTMENT represents that it has read and is familiar with the applicable Federal Regulations, set forth in Exhibit B attached hereto and that the DEPARTMENT believes it can develop a County Radiological Emergency Response Plan which complies with such regulations." Contract at 1, § 2. The scope of work includes preparing a draft and final County plan, integrating the plan with State and LILCO plans, developing implementing procedures, preparing and distributing public education materials, providing expert witness testimony concerning planning work, and training emergency planning personnel in coordination with the State and LILCO.

Dr. Lee Koppelman, Director of the Suffolk County Planning Department, was to supervise the effort. The task of actually revising the plan fell to two Suffolk County Planners, Robert Meunkle and Laura Palmer.^{4/} In a deposition taken in conjunction with Phase I Emergency Planning issues (see Attachment 4), Mr. Meunkle described his involvement in Suffolk County's planning efforts, including his close working relationship with LILCO, particularly with Mr. Charles A. Daverio, who, from early 1980 until spring 1982, was Chairman of LILCO's Emergency Planning Task Force:

Q. Who did you work with with LILCO on the siren system?

A. Mr. Daverio.

Q. Did Ms. Palmer have any involvement in that work?

^{4/} Mr. Meunkle took specialized courses in traffic engineering and transportation at Polytechnic Institute of Brooklyn in 1970, and was employed by the New York Highway Transportation Studies Group and the New York State Department of Public Works before coming to work for Suffolk County in 1972. He is currently Assistant Director of Traffic Safety in Suffolk County. Meunkle Tr. 5-10.

Ms. Palmer received a B.S. in forestry and a B.S. in landscape architecture and engineering from Syracuse University. She began work for Suffolk County in 1978 as an engineering aide in the Suffolk County Department of Transportation, where she gained a background in Suffolk County transportation routes. After one year as an aide she was given the professional title of planner. Palmer Tr. 5-7 (Attachment 5).

A. Yes.

Meunkle Tr. 44.

Q. Who did you discuss [prompt notification] with?

A. Specifically, I can recall Mr. Daverio, Mr. Renz, and other technical people from the utility at a meeting where prompt notification was discussed.

Q. Tell me everything you can recall about those discussions that you had with Mr. Daverio and Mr. Renz.

A. The thrust of the meeting was more oriented to the tone alerts and to the siren system with respect to their activation. As I recall, the bulk of the meeting was concentrated on that area, the tone coded signals. We had brought a communications expert from the [Suffolk County] Police Department with us who was familiar with that aspect of the overall public -- prompt notification system concepts. Also at the meeting, we were briefed on the Wyle proposal, what they intended to do and how they intended to accomplish it.

Meunkle Tr. 57-58.

Q. Did you consult with anyone else other than the people at Brookhaven with respect to recommendations for a protective action?

A. The utility.

Q. Who did you contact at the utility?

A. Mr. Daverio.

. . . .

Q. This is a general question. I am not just talking about protective action now. During the time you had contact with Mr. Daverio, would there ever be an occasion for the County, or through you, to make any demands on Mr. Daverio for any type of services, logistical support, information, anything of that sort?

A. Yes, sir.

Q. Could you tell me generally the demands that you made on Mr. Daverio?

A. I wouldn't categorize it as demands.

Q. How about requests? Do you like that better?

A. Let's say we had what I consider to be a professional working relationship with the people at the utility. We had a common goal of an emergency plan, and we did whatever was necessary to reach that goal. Yes, we made requests of the utility for services.

Q. All right, sir. Insofar as you were concerned then, did the utility respond in a professional manner?

[Discussion by counsel omitted.]

A. Absolutely.

Meunkle Tr. 90-91.

This information is consistent with the affidavit filed with the Board on August 1, 1982, in support of LILCO's application for issuance of a subpoena, in which Mr. Daverio indicated the extent of the cooperation between Suffolk County and LILCO:

I talked by telephone and met frequently with Robert C. Meunkle and Laura Palmer, of the Suffolk County Department of Transportation and then the Suffolk County Planning Department, to discuss both Suffolk County's and LILCO's emergency planning.

In preparing its emergency plan, LILCO relied directly on certain of the planning efforts of Mr. Meunkle and Ms. Palmer. For example,

1) Communications: the system for communicating with Suffolk County, described in LILCO plan Section 7.2, was developed through discussions with Mr. Meunkle and Ms. Palmer.

(2) Equipment: Suffolk County Health Department officials provided LILCO a list of equipment, most of which LILCO was willing to provide the County (radiation monitoring equipment, for example). Mr. Meunkle and Ms. Palmer were present at the meeting at which this list was presented to LILCO and may be able to provide information about the list and its genesis.

(3) Evacuation zones: the map of 2-mile, 5-mile and 10-mile radius evacuation zones (Figure 3 in Appendix A of the County plan), developed by Mr. Meunkle and Ms. Palmer, was used by LILCO in developing its protective action recommendations.

(4) Prompt Notification System: the placement of sirens by LILCO was influenced by the County evacuation zone map (Figure 3 mentioned above). The tone alerts were discussed with the County planners Meunkle and Palmer.

In her deposition (see Attachment 5), Ms. Palmer explained why she and Mr. Meunkle were chosen to do the emergency planning work, and described the scope of that work:

Q. As I understand it, the reason that the planning department, you, and Mr. Meunkle were given the responsibility to develop the Suffolk County emergency plan instead of outside consultants was to take advantage of the recognized experience and familiarity that you all had with Suffolk County?

A. That is correct.

Q. In doing all the work that you did do on the emergency plan that resulted in the final product in April of 1982, did you take into account as part of your work various local conditions that are unique to Suffolk County, such as its population and demography and its topography and its climate?

A. Yes.

Q. And its geography, all those local conditions?

A. Yes.

Q. I take it you were able to do so in part based on your own longstanding familiarity, experience with the area?

A. Yes, I was.

Palmer Tr. 26-27.

LILCO continued to cooperate with Suffolk County in exchanging and refining similar information from other nuclear plants on emergency planning, population figures, and meteorological data. Most of the sections of the County plan were completed by February 1982. At that time County planners indicated they would need assistance on the Health Department section if they were to finish their work by March 18th. LILCO offered to obtain assistance from Stone & Webster Engineering Corporation to complete that section of the plan. Meunkle Tr. Ex. 15 at 2.

C. The Sea Change

In mid-February 1982, a great change apparently occurred in the thinking of Suffolk County officials. On that date they announced the hiring of their present counsel in the licensing proceeding, and the very next day Dr. Koppelman sent a letter to Dr. Cordaro stating as follows:

We wish to inform you that based on current evaluation we believe an apparent conflict of interest exists in accepting your funds for the preparation of the County's Radiological Emergency Response Plan. Accordingly, we will return the funds you advanced and will not call for any further funds.

The County will continue, as required by law, to develop a plan consistent with the requirements of law and its obligation to protect the health, safety and welfare of the people.^{5/}

^{5/} Dr. Matthew C. Cordaro responded in a letter to the County dated March 17, 1982, stating the following:

LILCO, however, has requested neither the return of the \$150,000 paid to date nor the discharge of its obligation to make final payment. The Company is at a loss to understand why the County believes that acceptance of these payments constitutes a conflict of interest.

LILCO is relying on the County to perform its obligations under this contract and will be damaged severely if the County fails to perform these obligations fully.

Attachment 6 at 1. The County subsequently sent LILCO a check in the amount of \$150,000. LILCO has not cashed it and regards the contract as still in effect.

Press accounts quoted the County's new lead attorney as stating that emergency planning would be a "centerpiece" of the County's participation in the hearings.

Shortly thereafter, the Suffolk County Legislature adopted Resolution No. 262-1982, authorizing the County to hire certain consultants to prepare yet another emergency plan. Ms. Palmer explained in her deposition that she and Mr. Meunkle were abruptly relieved of their emergency planning duties:

Q. Without going into additional massive amounts of documents before me that chronicle the work that you and Mr. Meunkle engaged in as part of the emergency plan, is it fair to say that the extent of your work was very substantial to prepare the Suffolk County emergency plan?

A. Yes, it was.

Q. There came a time when you stopped working on the Suffolk County Emergency Plan; is that right?

A. That's correct.

Q. That was sometime in March of 1982?

A. I would say closer to April.

. . . .

Q. But for the change in circumstances, do you think that a final plan would have been reached by May of 1982?

[Objection of counsel omitted.]

A. Definitely.

Q. Let me hand you a handwritten document -- it appears to be captioned "Meeting and Conference Logs," -- and ask if you recognize that?

.

A. Yes, I do.

Q. What is it?

A. Basically, this is a piece of my own recordkeeping which catalogued the dates of particular meetings related to emergency planning since, I believe it was, 1980 to present.

[The document is Exhibit 2 to the Palmer deposition.]

.

Q. Palmer Exhibit 2 essentially was a work diary that you kept while you were working on emergency planning?

A. That's correct.

Q. Exhibit 2 ends with May 18th, I assume, 1982 entry. Why did it stop then?

.

A. Basically, that was the last contact we had with anyone in regard to the emergency planning project. We were no longer actively working on it.

.

Q. My question, to clarify something I have never understood, is what happened to the Suffolk County emergency plan and why did it happen?

[Objection of counsel omitted. Counsel for Suffolk County directed the witness not to answer this question.]

Q. What did you do when you stopped working on emergency planning, Suffolk County?

A. Basically, it was to reread some of the work that we had previously done and make corrections, such as typographical errors, etc., that we never had time to really look at before; make sure that all our files and correspondence were organized in case such material was required by our lawyers. In general, it was just to clean up the project in the best way possible, tie up loose ends.

Q. Then what did you do?

A. Subsequently, I was transferred to the Department of Public Works out in Yaphank.

Q. Was that transfer at your request?

A. No, it was not.

Q. Who had requested it?

A. The transfer was done through resolutions through the Suffolk County Legislature.

. . . .

Q. My earlier question was at whose instance was the transfer initiated?

[Counsel for Suffolk County objected and instructed the witness not to answer.]

Palmer Tr. 43-50.

Similarly, Mr. Meunkle testified during his deposition that he was abruptly discharged from his emergency planning duties:

Q. When did you last have any duties and responsibilities with respect to the emergency plan?

A. April 15th of this year.

. . . .

Q. When your duties and responsibilities in respect of the emergency plan ended on April 15th of this year, were you given a new job title?

A. No.

Q. You were just relieved of those duties and responsibilities?

A. That's correct.

. . . .

Q. Mr. Meunkle, what is your understanding of why you were relieved of your duties on April 15, 1982?

[Counsel for Suffolk County objected and instructed the witness not to answer.]

Meunkle Tr. 22-24.

After he was directed to abandon his emergency planning efforts, Mr. Meunkle wrote a memorandum to Frank Jones, Deputy County Executive, emphasizing the cooperation that had existed between Suffolk County and LILCO, and describing the nature of the emergency planning effort at the time it was abruptly broken off by the County:

The purpose of this memo is to clarify some aspects of what has been done with respect to the SCRERP [Suffolk County Radiological Emergency Response Plan]. Initially, let me indicate that everything you have to date was written and prepared by the County.

I must also state that, until the very recent intervention by the County at the Nuclear Regulatory Commission hearings,

we were working in a cooperative vein with LILCO, therefore, their preparation and printing of the exhibits that were designed by the County were to save the County time and money. Subsequent to the lawsuit [Suffolk County's intervention in the operating license proceeding], I received instructions from Dr. Koppelman to end our formal relationship with LILCO and to get from the utility whatever was then in the pipeline. This has been done.

Meunkle Tr. Ex. 15 at 1.

John Gallagher, Chief Deputy County Executive, explained in a May 17th letter to Dr. Cordaro (Attachment 7) that "given that the County is in an adversarial relationship to LILCO in the pending licensing hearings before the Nuclear Regulatory Commission, the County believes there would be the appearance of a conflict of interest by receiving any funds from LILCO." The letter closed with the following admonition:

It is the County's hope that LILCO will promptly terminate its resistance to the County's good faith emergency planning efforts. An increasing amount of the County's time is being consumed by the need to respond to seemingly belligerent actions of LILCO that challenge the County's current effort. I ask that you convey to your colleagues these serious sentiments, and that LILCO refrain from escalating further with rhetoric or deed any difference which exists between LILCO and the County with respect to the critical goal of effective radiological emergency preparedness.

D. The County's Behavior While Drafting
its Plan

1. Suffolk County Participation in
This Proceeding

After abandoning in February the almost-completed plan prepared by Meunkle and Palmer, the County delayed consideration of offsite planning in this proceeding for almost a year, slipping the completion dates of its planning efforts from October 1, 1982 to October 18 to "the latter half of November." The plan ultimately emerged during the first week in December, and the County announced that hearings were to be held the following January.

In response to the Board's inquiry with respect to integrated planning, the County suggested that "harmonious integration can be attempted if consideration of all emergency planning issues were deferred until after the County's plan is developed" and that "integration is impossible, as a practical matter, in the atmosphere of contentiousness in which the parties must square off to contest 'Phase I' issues." Suffolk County's Response to the Board's Inquiry with Respect to Integrated Planning, dated August 20, 1982. That atmosphere, of course, stemmed from the County's own actions regarding emergency planning. This behavior culminated in the County

defaulting on Phase I emergency planning issues, after focusing the parties' and the Board's attention on emergency planning for months by conducting discovery, drafting contentions, filing written testimony, and preparing for cross-examination.

2. The Suffolk County Planning Process

The County asserts in its motion to terminate that "Suffolk County in early 1982 instituted a comprehensive planning process to develop the best possible radiological emergency response plan." SC Motion to Terminate at 1. It supports this assertion by saying that Suffolk County assembled "a team of nationally recognized experts to perform various analyses, studies and surveys necessary to effective planning on Long Island," expended \$600,000, and stated in Suffolk County Resolution 262-1982 that the "plan shall not be operable and shall not be deemed adequate and capable of being implemented until such time as it is approved by the Suffolk County legislature." SC Motion to Terminate at 1-2.6/ Although the

6/ A subsequent resolution adopted in May stated that "Suffolk County shall not assign funds or personnel to test or implement any radiological emergency response plan for the Shoreham Nuclear Plant" until a plan is approved by the Legislature. See Resolution 456-1982. The County's many resolutions on emergency planning echo a single theme: there is preparedness when the County proclaims it, and conversely there is no preparedness when the County refuses to declare it.

County emphasizes that it is "the local conditions" on Long Island that prevent it from going forward with emergency planning, none of its consultants had previously been involved in emergency planning for Long Island.

At the end of eight months' work, the County produced the draft Suffolk County Radiological Emergency Response Plan, dated November 1982 (draft County plan). It has two distinguishing features: (1) it provides for a 20-mile emergency planning zone for protective action taken on behalf of the population (including evacuation), and (2) it requires additional "development." Draft County plan at 3, 18. As LILCO noted in its written statement to the Legislature of January 14, 1983,^{7/} and as noted by the County in its draft plan, the further "development" includes such items as (a) implementing procedures; (b) written agreements with hospitals, relocation facilities, governmental agencies and the like; (c) training, exercises, and drills for emergency workers; (d) resolution of the question whether bus drivers, firemen, and other emergency workers will report for work during an emergency; (e) public education; and (f) integration with the State and LILCO plans.

^{7/} This statement was served on the Board and emergency planning parties on February 1, 1983.

In short, the draft County plan is not a "plan" at all within a reasonable meaning of that word, and it contains very little if any information that is site-specific to Shoreham or Long Island. It is a generic blueprint, organized along the lines of NUREG-0654 and identifying the sorts of items one must develop to plan for an emergency at a nuclear power plant.

The County states in its supplemental brief at 10 that the draft County plan focuses particularly

on the planning and preparedness problems caused by the special circumstances and conditions present on Long Island, such as the Island's elongated narrow shape, its severely limited roadway system, its quickly changing wind patterns, and its local demographic features.

These items relating to siting of Shoreham were considered 11 years ago in the Environmental Statement for the Shoreham Nuclear Power Station, dated September 1972, which was prepared by the AEC in conjunction with Shoreham's construction permit application.

After participating as a party in these hearings since 1977, and engaging LILCO and the Board in litigation for a year over myriad issues, the County now asks the Board to terminate this proceeding because the County has rejected a draft plan produced unilaterally within the last year. The County's actions since February 18, 1982, abrogate 12 years of

cooperation between Suffolk County and LILCO; that is clear. But to conclude that Suffolk County will never be involved with emergency planning for Shoreham, as the County has in its pleadings, one must ignore those many years of cooperation and County effort, and focus only upon the curious behavior recently exhibited by County representatives.

E. The Legislative Hearings

The County states in its supplemental brief at 8 that, pursuant to its responsibility "for the protection of the health, welfare and safety of its citizens," the Suffolk County Legislature adopted Resolution Number 262-1982 outlining "the County's comprehensive program" to develop a plan. Part of that program includes approval by the Suffolk County Legislature of any plan before it can be submitted to State and Federal authorities for review. The County describes its review process in its supplemental brief at 11, citing the many witnesses appearing during public hearings, the days of testimony, and the pages of transcript. These statistics present the impression of a thorough, systematic, substantive review of the draft County plan. An examination of the legislative hearings, however, shows that the legislators lacked knowledge about emergency planning and nuclear power and did not focus upon the emergency plan before them.

1. The Legislators Are Not Knowledgeable
About Nuclear Power and About the Con-
tents of the Draft County Emergency Plan

In the draft Report of the Suffolk County Legislature, the County's special counsel states that offsite planning "is a matter which a county is primarily and uniquely qualified to address." Attachment 8 at 1. An examination of the legislative record, however, shows that for whatever reason, be it lack of information presented to them or lack of attention to the information before them, the legislators did not know the terms of the draft County plan they were considering. In most instances, the draft County plan addressed the questions posed by the legislators during the hearings. On evacuation, for example, one legislator stated:

Legislator: I think routes have to be planned. I think there has to be -- just getting in your car and leaving, is may be simple to say but it is not going to be simple when it happens.

Herr⁸/: There will still need to be planning. They will still need to be informed in advance as to what the best route for them is going to be under the several contingencies. Believe me, I do not think it is simple at all.

Legislator: I mean, we have two-way streets; we are going to have convert them to one-way streets.

⁸/ Mr. Phillip Herr is one of the County's consultants who worked on the draft County plan.

Herr: No, sir. At the moment we are not proposing that. At the moment we are not proposing that any streets that are two-way be converted to one-way.

Legislative Hearings Transcript 52 (hereinafter Leg. Tr. ____). The draft County plan indicates on pages 8, 17, and 98-100 that streets will remain two-way.

A second legislator stated incorrectly that the draft County plan does not provide for sheltering, relocation centers, or medical services:

Sheltering has been one of my problems for a year now, ever since we have been addressing this issue. Nowhere in our evacuation plan or our emergency plan is there shelter mentioned. You want to take people out of their homes. You want to put them in their cars and take them out of the area. Where are they going to go? Are you going to provide shelter? Are you going to provide for their food, their medical attention?

Leg. Tr. 210-11. The draft County plan describes sheltering at pages 5-6 of its introduction and at pages 4 and 9 of the text; medical services at pages 17 of the introduction and 116 of the text; and relocation centers at pages 17 of the introduction and 94 of the text.

This legislator also indicated an unfamiliarity with the emergency planning criteria against which the draft County plan would be measured:

Mr. Cordaro^{9/}, let's go over your statement. On page two, you refer to the Federal Regulations of the EPZ. I don't know what the Federal regulations are, or how they were designed, but I am just questioning whether in their regulations there was an area of Long Island taken into consideration or are we talking about flat lands such as we have out west, or up north.

And, this legislator expressed a lack of knowledge regarding nuclear power plants in general and Shoreham in particular:

Legislator: What size is the reactor at Shoreham?

Cordaro: It is 820 megawatts.

Legislator: Are there any other reactors of that size in the United States?

Cordaro: Yes, a number.

Legislator: The design of the reactor at the Shoreham plant, is it the same design as other plants in the United States?

Cordaro: Yes, there are a number of similar reactors, the same model of reactor and the same containment.

Legislator: This is all steam?

Cordaro: A boiling water reactor, yes.

Legislator: What type of fuel? I have a car and I pull into the gas station, and there is a high octane, low octane, regular, unleaded. What type of fuel?

^{9/} Dr. Matthew C. Cordaro, LILCO Vice President of Engineering, testified before the Legislature on January 18, 1983. See Leg. Tr. 167.

How long does it take to cool down and what is the radioactivity that would be released when you removed the head of the reactor?

Will he [an employee working at the plant] take home any radioactivity to his family?

Leg. Tr. 209-210.

A third legislator was confused about the size of the emergency planning zone:

Let me ask another one. You have presently set up sirens all over the 12-mile zone. Whose idea was the sirens?

Leg. Tr. at 298. A 10-mile emergency planning zone, as provided in NRC regulations, is used by LILCO in conjunction with sirens. In fact, the County's departure from the 10-mile zone provided in regulations is a major distinguishing feature of the draft County plan.

A fourth legislator indicated he was unfamiliar with the procedure for notifying County officials regarding an accident at Shoreham:

Legislator: Dr. Cordaro, in the event of an accident the plant will depend on a LILCO employee to initiate the procedures. Who at the Shoreham plant is the person who will be responsible for seeing that officials of Suffolk County should be notified?

Cordaro: It will always be the person who assumes the role of Emergency Director

Legislator: Does he have any other authority besides that?

Cordaro: Normally he is the shift supervisor who is responsible for what goes on in the control room and what goes on on the site during the shift.

Legislator: Is he in a position to establish in his own mind the problems as far as economics with the calling of an emergency versus the safety question?

Cordaro: There are no economics involved at all. The procedures are set forth in detail. He is required to act when certain emergency action levels are reached regardless of the economic consequences.

Legislator: This has not come up at all today, but I have to ask that question. Is LILCO prepared to allow a Suffolk team to come in for a full safety inspection?^{10/}

Leg. Tr. 321-22. Notification of Suffolk County officials is described in detail in the draft County plan at pages 44-58.

A fifth legislator criticized the witnesses for not having studied events that have never occurred:

Legislator: Have you personally witnessed and done interviews with large movements of people [as in an evacuation]? Have you witnessed such events?

Milet^{11/}: I have done. In fact my doctoral

^{10/} The discussion of a full safety inspection continues through page 330.

^{11/} Dr. Dennis Milet, Associate Professor of Sociology at Colorado State University, testified before the Legislature on January 18, 1983, in conjunction with LILCO's presentation. See Leg. Tr. 182.

dissertation ten years ago was on warning on evacuation at the Rapid City flood.

Legislator: The question was, where in the United States have there been evacuations as a result of a nuclear accident?

Mileti: I am happy to say in very few places. I have not done any interviews with human beings in response to their movement because of risk associated with a nuclear power plant.

Legislator: So you have done no work in that area?

Mileti: I have done extensive work in how human beings respond to warnings of emergencies.

Legislator: I am saying have you personally observed and done interviews after evacuation because of an accident at a nuclear power plant?

Mileti: But conceptually --

Legislator: That is what our consultants were doing also, conceptual. So your opinions can also be characterized as random speculations as well. Let me finish my comment please. Since you have no prior experience with the movements of people after a nuclear accident, you are just speculating what people's perception might be. You are speculating what their conduct might be, because you have no prior experience to gauge, do you?

Dynes¹²/: I don't know whether you heard me in the beginning. I said I was head of the task force for the Kemeny Commission as such.

¹²/ Dr. Russell Dynes, Professor of Sociology at the University of Delaware, testified before the Legislature on January 18, 1983, in conjunction with LILCO's presentation. See Leg. Tr. 182.

Legislator: So?

Dynes: So that is Three Mile Island. The President's Commission as such to look at that particular situation. It involved looking at evacuation.

Legislator: The other gentleman did answer the question. You clouded it. I did not mean to imply that you haven't looked at various scenarios. I am saying the Three Mile Island accident did not result in large evacuations of people from one region to another.

Dynes: I think he was answering you from another viewpoint. You asked specifically in terms of a nuclear thing. The only parallel is Three Mile Island. I commented that I have studied that.

Legislator: Yes, you have studied it, but it was a situation, and thankfully so, that did not result in the evacuation of large numbers of people from communities. Correct?

Dynes: That is the only example. If you are asking specifically, we argue essentially, if you look at a wide variety of behaviors and a wide variety of situations, to look at the commonalities among that, in other words, the similarities in nuclear power involves threats in the same way that hurricanes, tornados, and other types of things.

Legislator: That is your assumption.

Dynes: That is the assumption. That is the assumption of most people in the field.

Legislator: You are making assumptions, but you have never experienced, you have never done work based on events after an evacuation because of a nuclear accident.

Dynes: Simply because it has not occurred.

Another
Legislator: It did happen at Three Mile
Island.

Cordaro: That is exactly the situation that he stud-
ied and he is talking about.

Prospect: The point that should be made is --

A third
legislator: Legislator Prospect, would you
finish your remark, please?

Legislator: The point being made here is that you also
are conceptualizing, you are creating
certain assumptions, and then you engage in
speculation, because there is no prior ex-
perience to gauge. You are assuming that a
nuclear accident is similar to other types
of events, hurricanes and what have you,
and you are entitled to make that assump-
tion. Other people may not make that as-
sumption.

Freilicher^{13/}: There has only been one instance where any
kind of evacuation took place as a result
of any kind of nuclear accident.

Legislator: That is my point.

Freilicher: Which is Three Mile Island. We have here
the sociologist who worked on Kemeny
Commission, which studied Three Mile
Island. I do not think we can get any
closer than that.

Legislator: Well, thank heavens we can't get any closer
to that at this point.

Leg. Tr. 354-357.

^{13/} Ira L. Freilicher, EILCO Vice President of Public Affairs,
testified before the Legislature on January 18, 1983.

The excerpts quoted above indicate that the legislators lacked the knowledge about nuclear power and their draft County plan to make a determination regarding the adequacy of the plan before them.

2. Suffolk County Is Attempting to Regulate Nuclear Power through Its Review of the County Emergency Plan

On the first day of the legislative hearings (January, 17, 1983), the presiding officer opened the proceeding by saying:

I would emphasize to those of you who would be acting as committee chairman or chairpersons [at each day's hearings] that the subjects are and should be confined only to the [draft County] plan that we are discussing, and it would be inappropriate to discuss any other issues such as the relative merits of nuclear power.

Leg. Tr. 3. The excerpts below illustrate that this statement was ignored, and that the Legislature in its review did consider the relative merits of nuclear power, and not just the draft County plan.

First, a legislator questioned County consultant Philip Herr regarding the siting of the plant:

Legislator: Let me ask one final question. I can't resist asking. As a physicist, and if you

were on the siting committee, would you place Shoreham where it is today?

Herr: If I were a physicist?

Legislator: You said you were a physicist.

Herr: No, I didn't. No. No. No, I, am a planner.

Legislator: That is even better. As a planner, would you place Shoreham where it is today?

Herr: I haven't really thought about that. I think that it takes a lot of considerations that I have not really looked at

Leg. Tr. at 62.

Another legislator stated the purpose of the hearings:

We are in a new industry, looking for the kind of regulations and the kind of reactability of the public so that there will be some maximum protection for the public, and that is precisely what the heart of this particular hearing and this particular process is about, and that is why we have to make a judgment call on what we believe to be the best in the interest of the County of Suffolk.

Leg. Tr. 228.

A third legislator discussed at length the risks of nuclear power, and the insurance available to industry:

Legislator: Thank you, Mr. Chairman. Dr. Cordaro, your comments with respect to probabilistic risk assessment indicate a faith in the safety of nuclear power which I find inspiring. I was wondering, given your faith in limited risk, if LILCO wishes at some point to insure homeowners with respect to possible property loss. Would you consider that a profitable enterprise?

Cordaro: Homeowners are insured by the Price Anderson Act approach to insurance, which is now being assumed totally by the nuclear power industry. In effect, we do insure homeowners right now by contributing to the pool that would be available in the event of an accident, which would cover liabilities as a result of that accident.

. . . .

Legislator: The fact remains that there is still limited liability with respect to private utilities and nuclear power, and that is why homeowners cannot take out insurance policies, just like they take policies for auto and homeowners' insurance, fire insurance, auto insurance. They cannot take out an insurance policy to protect their homes in case of a nuclear accident. They just cannot get a policy like that, which leads me to believe that perhaps the insurance industry knows something that you don't know. Perhaps the insurance industry -- they don't place much faith in the probabilistic risk assessments that you place in them. I think they see something that perhaps you don't see. And I think I would like to add at this point that the mathematical modeling that the probabilistic risk assessment involves basically goes back to Mr. Rasmussen in the 1960's and mid 70's, and the so called Rasmussen Report, and that mathematical modeling, which is still being used, and I also believe our County consultants employed it to a certain extent, and is still being used throughout the country, has come under some criticism by various professional organizations like the Union of Concerned Scientists and the American Physical Society. So, this mathematical modeling that is going on is something about which there is not a uniform consensus as to its accuracy. . . . We can play a lot of games with numbers and I

would not like to use the mathematical modeling that you employ to make any judgment about emergency planning in Suffolk County.

Leg. Tr. 228-230.

The legislators also considered (1) the transportation of nuclear waste, Leg. Tr. 287-90, (2) whether it would be more expensive for the ratepayers to operate Shoreham or abandon it, and (3) the ability of LILCO to convert other oil-fired units to coal. Leg. Tr. 308-19.

Suffolk County's interest in the merits of nuclear power in general, rather than in the details of the County plan, is also reflected in the draft Legislative Report written by the County's special counsel:

Because of the questions raised concerning the use of [probabilistic risk assessment] the legislature believes that it cannot rely on the work of both LILCO's and the County's experts in regard to the probability of an accident and especially core melt accident and its consequences, and views such data with skepticism.

.

[A]ny discussion of the low probability of an accident which would require an evacuation is irrelevant.

.

Any considerations of developing radiological emergency response plan for the Shoreham nuclear power reactor must begin by confronting the one single most overriding feature of the area, and that is that the reactor is built on an island.

. . . .
Given their responsibilities in proximity, the legislature believes that both the State and Federal government should defer to the County's judgment as to what is in the best interests of its citizens and their public health and safety.

Legislative Report 1, 7-8, 12, 21-22 (Attachment 8).

3. The County Determined Well before the Legislative Hearings Began that No Plan Would Be Accepted

Suffolk County decided to reject the notion of any emergency planning before it began its hearing process. On the first day of the hearings, one legislator stated his opposition to the plan (based upon the site of Shoreham):

I don't know that the people that I represent could accept any plan that leaves them stranded at a geographical dead-end of an island in the event of some kind of mishap which we all say is infinitesimally remote [sic] possible, and yet it could or may occur. It depends upon the persons that you speak to that give you these statistical levels of probability that they may or may not occur at all. The point is that we have a nuclear [plant] that has been

constructed, and the risk assessment that has been made by various experts, but no matter where you look the substantial communities of eastern Long Island, especially substantial in terms of population during certain times of the year as I said, are virtually excluded. . . Based upon the risk that I see and the exclusion of a substantial part of Long Island, I don't see how we can adopt a plan like this.

Leg. Tr. 192-3.

In response to a scientist who emphasized the low probability of an accident in urging that emergency planning continue for Shoreham, another legislator rejected statistical probabilities in connection with emergency planning:

Doctor, I really recognize and appreciate your talent in the field of nuclear science, as well as the gentlemen who have spoken before you, and as well as all the statistics that we have received in the past and will receive many, many more, I am sure, before this is resolved, but I am sorry, there is just one thing that keeps going through my head.

You say one in one thousand, one in ten thousand, one in a million, one in a trillion. That only brings back to my thoughts a vessel that left England many years ago that was supposed to be sink-proof and it sunk on its maiden voyage. I mean, things like this happen. Don't tell me--I mean, don't insult me by saying one in ten billion years, because it could happen the day Shoreham happens. We do not know. We are not God, and neither are you. Therefore, it is our job to protect everyone on this island.

Leg. Tr. 443-444.

On the fourth day of legislative hearings, members of the public were invited to make three-minute statements to the Legislature, reflecting their views on Shoreham. The first speaker began by saying "I am here to implore everyone in this room who has the power to do so to prevent permanently the opening of the Shoreham plant." Leg. Tr. 468. The statement was long (see Leg. Tr. 468-472) and detailed many grievances regarding Shoreham and emergency planning. A legislator's remarks in response illustrate the Legislature's predisposition regarding Shoreham:

Legislator: Excuse me. I have extended your speech a few minutes.

Levy: I am sorry. Thank you.

Legislator: May I just make one point? I know that you are here to express your views, and I believe that we all have the same feelings on this particular issue, and to give everyone a fair chance, please keep it at three minutes. So if you can just summarize, and leave the statement with the Clerk, every legislator will read it.

Leg. Tr. 471 (emphasis added).

In response to a statement by the Executive Director for the New York State Committee for Jobs and Energy Independence, who represented the New York Building and Construction Trades Council at the AFL-CIO, and spoke in support of Shoreham, an

emergency plan and the operation of Shoreham, another legislator stated the following:

Sir, you just spoke of cooperation. There can only be cooperation when people and institutions agree on goals. The goals of Long Island Lighting Company and the goals of this county government are diametrically opposed, and under those circumstances, there can only be confrontation, and we do not shrink from that responsibility.

Leg. Tr. 526.

At the public hearings, several school children spoke against Shoreham:

Schoolchild: I don't know much about nuclear power, but I do know that I am against anything that endangers my life and even if we do make it without getting any harm to us, what about if we do grow up and have children. What is going to happen to them?

Are they going to be deformed? Is there going to be something physically wrong with them? I think all the kids here would like to grow up without any harm to them or, if something should happen, that they might have something wrong with their kids if they do have kids. Thank you.

Legislator: Thank you. Out of the mouths of babes.

Leg. Tr. 537.

At the close of the day, the legislators were invited to comment. One legislator closed his remarks with the following statement:

[S]tay with the fight to the end, [and] I think wisdom might eventually prevail and maybe we will show that there can be no evacuation planning and emergency planning for Long Island, and maybe we will prove that there is no justification for Shoreham to open.

Thanks very much and stay with it.

Leg. Tr. 574-575.

A letter dated January 19th -- three days into the two weeks of hearings and one month before the Legislature voted on the draft County plan -- from a legislator to the President of the People's Action Coalition of Suffolk County states precisely the reason why, in the legislator's view, the County was holding legislative hearings:

As you will remember, I openly expressed my displeasure of . . . legislation relative to the Shoreham Plant. I maintained at the time that the most simple and direct answer to the problem would be institution of legal action by the County of Suffolk at the time the NRC decides to issue the license and demanding that LILCO prove the effectiveness of a viable Evacuation Plan. It stands to reason they could not do so in a million years and then, in my way of thinking, they could not activate the plant.

The purpose of [the] resolution [establishing a new planning effort for the County], as I see it, was to spend four million dollars of taxpayers' money, not counting the untold millions that will be paid in the event any so-called Evacuation Plan is implemented.

I understand your position that the plan should not be adopted; however, the reasoning behind the hearings for a so-called plan, at the present time, is to use the facts presented as a basis for a future lawsuit. In this case, [the legislator promoting the planning resolution] has saddled the people with an expense that is atrocious, unreasonable and, in my humble opinion, with no affirmative result in the future

(Emphasis added.) A copy of the letter is Attachment 1 to this brief.

F. The Result of the Legislative Hearings

The Legislature's flurry of activity in January and February culminated in Resolution 1196-83, which provides that "no local radiological emergency plan for a serious nuclear accident at Shoreham will protect the health, safety, and welfare of Suffolk County residents." The resolution passed the Legislature 15 to 1, following brief consideration of reports from the special counsel to the Legislature (see Attachment 8), and Peter Cohalan, the Suffolk County Executive (see Attachment 9). Mr. Cohalan, abrogating the years of Suffolk County support for and acquiescence in constructing Shoreham (and his own approval of previous emergency planning efforts), stated publicly the day before the vote was taken that "there never can be emergency preparedness" for Shoreham and that "Shoreham should never operate." See Attachment 10 at 3.

In light of the long history of County-LILCO cooperation on emergency planning, it is quite possible that Mr. Cohalan's statement is not the final word on County participation in emergency planning for Shoreham. Even taking his statement at face value, it comes at least 10 years too late.

G. LILCO's Continued Pursuit of Offsite Planning

While the preparation and later the Legislature's hearings on the draft County plan went forward, LILCO continued to develop the offsite plan begun by Mr. Meunkle and Ms. Palmer. Shortly after the County had abandoned that plan LILCO had explored with the County the possibility of refining the plan and using it as an interim plan while the draft County plan was being developed. The County refused. Therefore, on April 29, 1982, LILCO met with New York State Commissioner of Health David Axelrod, and Disaster Preparedness Commission Chairman William Hennesey, and it was agreed that the offsite plan prepared by Meunkle and Palmer would be submitted to the State for review against emergency planning criteria.

LILCO submitted the plan on May 10 with a letter of transmittal specifically noting that Suffolk County did not endorse it. Attachment 11.14/ It was reviewed by the State

14/ LILCO has never asserted that this offsite plan is endorsed by the County. Still, the County states without ex-

(footnote continued)

and returned to LILCO with comments. LILCO responded to the comments, amended the plan, and resubmitted the plan to the DPC in the fall of 1982.^{15/}

The DPC Staff subsequently determined that the plan satisfied State and Federal requirements. A hearing was scheduled for December 8th for the entire DPC to consider the LILCO-submitted offsite emergency plan; the County was invited. Rather than participate in the administrative process before the DPC, the County sought and obtained a temporary restraining order from New York State Supreme Court Justice Edward F. Conway on December 7th, precluding the DPC meeting until a preliminary injunction hearing could be held. On December 15 attorneys for Suffolk County, New York State, and LILCO met

(footnote continued)

planation in its Supplemental Brief that "[o]n May 10, 1982, LILCO submitted to the New York State Disaster Preparedness Commission ('DPC') a document contained in two loose-leaf binders entitled 'Suffolk County Radiological Emergency Response Plan'." Supplemental Brief at 13. But as indicated, (1) the plan was accompanied by a letter from Dr. Cordaro to the DPC expressly stating that the County had disavowed the plan, and (2) the Chief of the Suffolk County District Attorney's Special Investigation Unit, following an investigation urged upon him by the Suffolk County Executive and Legislature, found on November 17, 1982 that LILCO broke no State or local laws by submitting the plan to the DPC (Attachment 12).

^{15/} An updated copy of this plan was provided the Board and parties on February 1, 1983.

before New York State Supreme Court Justice Robert C. Williams and agreed upon a stipulation that provided that the DPC would refrain from further action on the LILCO-submitted plan until February 23, 1983.^{16/} To date, the State has not acted upon the plan.

From the time that Mr. Meunkle and Ms. Palmer were instructed to cease work on the offsite plan, LILCO has continued its efforts to obtain the County's cooperation in emergency planning. For example, on June 17, 1982, LILCO Vice President Ira Freilicher met with Frank Jones, Deputy County Executive, in an attempt to explore ways for the County to proceed with emergency planning. On September 17, 1982, Dr. Cordaro wrote Mr. Gallagher that "we are willing to meet at any time and place you suggest with the County's consultants or emergency planning steering committee" Attachment 13. Likewise, on August 7, 1982, LILCO's counsel wrote to counsel for the County suggesting that one or two LILCO representatives be made a part of the County's steering committee and stating that LILCO was ready to resume meetings with the County to coordinate the County's planning with LILCO. Attachment 14. On

^{16/} This stipulation was served upon the Board and the emergency-planning parties on February 1, 1983.

September 29, 1982, Dr. Cordaro invited Mr. Jones to an informational meeting to discuss the distribution of tone alerts to special facilities in the vicinity of the plant. Attachment 15. On October 4, 1982, Dr. Cordaro wrote Mr. Gallagher and said that "we are willing and anxious to cooperate with the County in this [emergency planning] endeavor." Attachment 16.

On October 7, 1982, W. G. Schiffmacher, Manager of LILCO's Electrical Engineering Department, wrote to Mr. Jones describing the Shoreham Prompt Notification Siren System (as Mr. Jones had requested) and asking permission to proceed with the installation of communications equipment at County facilities. Attachment 17. On October 11, 1982, Dr. Cordaro wrote to Mr. Jones, asking permission and cooperation regarding some six items involving communications among emergency personnel and the public. And, in its statement filed with the Legislature on January 18, 1983, LILCO expressed hope that "there will be a renewed relationship of cooperation with the County on emergency planning as a result of LILCO's participation [in the Suffolk County Legislature's hearings]." Long Island Lighting Company's Presentation of the Legislature of Suffolk County on the November 1982 Draft Suffolk County Radiological Emergency Response Plan, dated January 14, 1983, at 27.

Unfortunately, current political wisdom in the Suffolk County Executive's office and the County Legislature seems to require County officials to ignore LILCO's proffer of cooperation. But it is clear, as discussed below, that Federal law and regulations do not permit a local government to come at the eleventh hour and demand that because it is then unwilling to participate in emergency planning, a nearly complete nuclear power plant cannot operate as a matter of law.

IV. THE LEGAL ISSUES

A. Introduction

On pages 2-3 of its brief the County states the two "purely legal issues" of which the County seeks certification:

Issue 1. Do Sections 50.33(g) and 50.47 of the NRC's regulations require, as a precondition as to issuance of an operating license for Shoreham, the RERP [Radiological Emergency Response Plan] of the local government, Suffolk County?

Issue 2. If the answer to Issue 1 is affirmative -- i.e., the local government RERP of Suffolk County is required by the NRC's regulations -- does Section 5 of the NRC Authorization Act for FY 1982-83 permit the NRC to disregard Section 50.47 and Section 50.33(g) of the NRC's regulations?

SC Br. 2-3. The County must prevail on both issues in order to succeed in having this proceeding terminated.

Since the County insists that purely legal issues are involved, the Board should presume that any facts are in LILCO's favor. Specifically, the Board should assume that LILCO is prepared to present evidence on an emergency plan that can adequately protect the health and safety of the public and can be implemented without Suffolk County's approval or cooperation. Indeed, LILCO here asserts that this is the case.^{17/} In this way, by assuming that the plant can operate safely without the County's help, it becomes clear that what the County is asserting is simply a veto power.

There are essentially four reasons why the veto power claimed by the County does not exist. First, 10 C.F.R. § 50.33(g), sensibly read, requires the applicant to submit local plans only if they exist. Second, 10 C.F.R. § 50.47(a)(2) simply does not by its plain meaning support the County; indeed, the County has to add the word "government" to § 50.47(a)(2) to get it to read the way it wants. Third, even

^{17/} LILCO acknowledges that Suffolk County has made the task of emergency planning much more difficult by its refusal to cooperate; indeed, it may turn out that emergency planning done without the County, though meeting NRC standards, protects the public less than if the County had helped. But LILCO denies that the task is impossible and in fact is developing alternative means for implementing the LILCO offsite plan without the County's help. LILCO will be ready to go forward with evidence of these alternate means presently.

if the applicant cannot get a license under § 50.47(a)(2), he is entitled to show exceptional circumstances. Under 10 C.F.R. § 50.47(c)(7), for example, he may show the insignificance of any deficiencies, the existence of "interim compensating actions," or "other compelling reasons." The rulemaking record shows that the Commission intended to look at "all the factors" and make a "balancing judgment" to decide whether a plant could operate in the face of deficiencies; it did not intend to enact a per se rule that automatically ended the proceeding if a local government said "stop." Fourth, construing the Commission's regulations to give local governments a veto would permit those governments to exercise ultimate authority in an area that has been preempted by the federal government; this construction would violate § 271 and § 274 of the Atomic Energy Act and thus the principle that regulations should not be construed in such a way as to call into question their validity.

Suffolk County asserts that two of the NRC's regulations are involved in this issue, 10 C.F.R. § 50.33(g) and § 50.47. Although, as we shall see, 10 C.F.R. § 2.758(b) and § 50.12(a) also shed light on the issue, we will address the two regulations that the County thinks relevant first.

B. Section 50.33(g) Does Not Require the Applicant to Produce a Local Government Plan if None Exists

The County relies first on 10 C.F.R. § 50.33(g), which specifies what information the utility must include in its application for a license:

Each application shall state:

. . . .
(g) If the application is for an operating license for a nuclear power reactor, the applicant shall submit radiological emergency response plans of State and local governmental entities in the United States that are wholly or partially within the plume exposure pathway Emergency Planning Zone (EPZ), as well as the plans of State governments wholly or partially within the ingestion pathway EPZ.

10 C.F.R. § 50.33(g) (1982) (footnotes omitted). The County says that this regulation means that the applicant must submit a plan "of"^{18/} the County government or it can never get an

^{18/} The meaning of the phrase "plans of . . . local governmental entities" is itself not free from doubt. Suffolk County thinks it means plans endorsed by the highest level of government in a county. LILCO submits that a plan, such as the LILCO offsite plan, that was originally prepared in large part by the Suffolk County Planning Department under a contract approved by the County Legislature and Executive, is a plan "of" the County government for the purposes of 10 C.F.R. § 50.33, at least when there is no other county plan. This might not be the case under New York State law or Suffolk County law, but it is the case, LILCO submits, under the

(footnote continued)

operating license.

A fairer reading of § 50.33(g), however, is that the applicant must submit a plan of a local government entity if it exists. If an Internal Revenue regulation were to say that "the taxpayer shall report income from rental property," it would not mean that every taxpayer had to buy property and rent it out in order to get rental income to report; it would mean that every taxpayer would have to report rental income if he had it. Similarly every NRC applicant must submit the local county plan if there is one (and local town plans if they exist as well).

The trouble with Suffolk County's § 50.33(g) argument is that it proves too much. Since "local governmental entities" in § 50.33(g) can mean any town, village, or other municipality, as well as a county, Suffolk County's argument implies that a plan from every village in the EPZ must be in the license application.^{19/} But in fact the requirement that an applicant

(footnote continued)

federal regulation. The now-outdated 1978 County plan, mentioned above, might also serve.

^{19/} LILCO suspects that few nuclear plants in this country can show a separate emergency plan for each and every "local governmental entity." And the Rockland County situation shows that an absence of an approved plan from one local entity does not necessarily prevent a reactor from operating. Consolidated

(footnote continued)

submit the plans of local governmental entities obviously does not mean that the applicant must ensure that a plan exists for every local government for ten miles around.^{20/}

C. Section 50.47(a)(2) Does Not Give Localities a Veto

The County's central argument is that "the NRC's findings on offsite preparedness must be based upon a review of State and local government plans." SC Br. 16 (emphasis supplied by SC). The County bases this conclusion on § 50.47(a)(2), which reads in pertinent part as follows:

(footnote continued)

Edison Co. of New York (Indian Point Units 2 and 3), CLI-82-38 (Dec. 22, 1982). It therefore becomes hard to see why the County thinks that § 50.33(g) requires a Suffolk County-approved plan.

If the County believed that the absence of an emergency plan for every "local governmental entity" in the 10-mile EPZ constituted a fatal flaw in LILCO's license application, it should have advised the Board before allowing the Board and parties to spend almost a year litigating other issues.

^{20/} The County's argument also has the unwelcome implication that the NRC regulations make it impossible for a State and a utility alone to effect emergency planning without the help of localities. We are not talking about a state implementing a local government's plan; we are talking about the theoretical possibility that a state plan, using state resources, might be the only plan other than the utility and the federal plans. It is simply not credible that the Commission intended to preclude this possibility even if it could be shown to adequately protect the public.

(2) The NRC will base its finding on a review of the Federal Emergency Management Agency (FEMA) findings and determinations as to whether State and local emergency plans are adequate and capable of being implemented, and on the NRC assessment as to whether the applicant's onsite emergency plans are adequate and capable of being implemented.

10 C.F.R. § 50.47(a)(2) (1982). Obviously what the County has done here is to add the word "government" to § 50.47(a)(2), making "local emergency plans" into "local government emergency plans."

A comparison of 50.47(a)(2) to § 50.33(g), which speaks of plans of "local governmental entities," shows that the Commission knew how to specify government plans when it wanted to.^{21/} A local government plan is one prepared or endorsed by

^{21/} Under § 50.33(g) the applicant is obliged to submit any local governmental plans that exist. But under § 50.47(a)(2) the applicant may base its case on "local plans," no matter who prepared or endorsed them. The important thing, as always, is that the public be adequately protected.

That the difference in wording between § 50.33(g) and § 50.47 is meaningful is suggested by the change that occurred in § 50.47(a) between the proposed and the final versions. Both of the two alternatives for the proposed § 50.47(a) provided that no operating license would be issued unless the emergency response plans "submitted by the applicant in accordance with § 50.33(g)" had been reviewed and concurred in by the NRC. 44 Fed. Reg. 75,170 col. 3 (Dec. 19, 1979). Section 50.47(a) as finally adopted lacked the reference to § 50.33(g) and provided simply that no OL will be issued unless a finding is made by NRC that "the state of onsite and offsite emergency

(footnote continued)

a local government; a local plan is a plan for a locality.^{22/}
There is no local government plan for Shoreham, but there is a
"local plan," the one begun by the Suffolk County Planning
Department and completed by LILCO.

(footnote continued)

preparedness provides reasonable assurance that adequate protective measures can and will be taken."

A similar change, leaving intact the provision that plans of State and local "governmental entities" be submitted to the NRC but making the required finding, not that "local government emergency plans" have been concurred in, but that the "state of emergency preparedness" provides reasonable assurance, was made between the proposed § 50.54(s) and the final § 50.54(s). Cf. 44 Fed. Reg. 75,171 col. 1-3 (Dec. 19, 1979) with 45 Fed. Reg. 55,410 col. 1-3 (Aug. 19, 1980).

This view finds some support also in the Memorandum of Understanding between the NRC and FEMA, which provides that the NRC may request FEMA to review a plan, quite apart from the ordinary FEMA review procedure that starts with the State government. 45 Fed. Reg. 82,713, 82,714 col. 1 (Dec. 16, 1980).

^{22/} The word "onsite" in the phrase "applicant's onsite emergency plans" in § 50.47(a)(2) suggests that the Commission contemplated that applicants might have offsite plans as well as onsite plans. Had the Commission intended, to the contrary, that only local governments might have offsite plans, presumably the Commission would have written § 50.47(a)(2) not in terms of the "applicant's onsite emergency plans" but merely of the "applicant's emergency plans," because onsite plans would have been the only kind of applicant plans possible.

A plan prepared by a private volunteer for a locality is just as much a "local plan" as any other; indeed, many local plans in this country are prepared by consultants, often consultants paid by the utility. Nothing in the NRC regulations suggests that such plans are not local plans until the local legislature elects them to that position. A private local plan may be harder to implement than a governmental plan; but that is an issue of fact, not law.

D. A Local Government Plan Is Not a Prerequisite for Using § 50.47(c)(1)

1. The Text of (c)(1) Does Not Support Suffolk County

Even if the County were correct that only an official government-sponsored local plan could satisfy § 50.47(a)(2), 50.47(c)(1) would still permit the applicant to show for a variety of reasons that deficiencies in plans are not sufficient to block the operating license:^{23/}

^{23/} The ASLB in the San Onofre case cited by the County recognized that § (c)(1) was intended to solve the problem of governments that fail to meet NRC/FEMA standards:

Finally, in apparent recognition of complexities in emergency planning requirements, and of a license applicant's limited control over offsite planning, the rule contains a special provision for exception relief, 10

(footnote continued)

Failure to meet the standards set forth in paragraph [50.47](b) of this section may result in the Commission declining to issue an Operating License; however, the applicant will have an opportunity to demonstrate to the satisfaction of the Commission that deficiencies in the plans are not significant for the plant in question, that adequate interim compensating actions have been or will be taken promptly, or that there are other compelling reasons to permit plant operation.

10 C.F.R. § 50.47(c)(1) (1982).

Thus, LILCO is entitled to show that "adequate interim compensating actions" can be taken. An example of such actions is the LILCO offsite plan. LILCO would also be entitled to show that the County's nonparticipation is not "significant" or that there are "other compelling reasons" to permit plant operation. Under the first of these standards, LILCO might try to show that Shoreham-specific design features coupled with new information about radioactive source terms make the County's cooperation unnecessary. Under the second standard, the need for electric power might be a compelling enough reason given the right circumstances.^{24/} Of course, LILCO might or might

(footnote continued)

C.F.R. 50.47(c)(1).

Southern California Edison Co. (San Onofre Nuclear Generating Station, Units 2 and 3), LBP-82-39, 15 NRC 1163, 1174 (1982) (emphasis added).

^{24/} The impact of shutting down a reactor may constitute "other compelling reasons." See 45 Fed. Reg. 55417 col. 2

(footnote continued)

not be able to carry its burden of proof on these matters; the point is that it is entitled to an opportunity to try.

The County's argument is that § 50.47(c)(1) is "immaterial" (SC Br. 25-30) because it cannot be triggered unless there is first a local government plan. The County puts it this way:

The essential predicate for Section 50.47(c)(1), however, is that all three of the required emergency plans be in existence and be operational. . . . Section 50.47(c)(1), however, is immaterial, to the present proceeding, because here there is no local government plan in existence and none will be forthcoming and operational. Therefore, there is no predicate for the application of Section 50.47(c)(1).

SC Br. 26 (emphasis in original).

The problem with this argument is, first, that the "essential predicate" idea is plucked out of thin air, and it violates the "plain meaning" rule on which the County relies so heavily elsewhere (see SC Br. 15, 22, 25).

LILCO submits that the regulation means what it says. Section (c)(1) can be resorted to if there is a "[f]ailure to meet the applicable standards set forth in [§ 50.47(b)]." If

(footnote continued)

(Aug. 19, 1980) (discussing shutdowns of multiple units on a single site because of an unsatisfactory local plan).

the County's nonparticipation causes the plan to fail to meet one or more of those standards, then LILCO "will have the opportunity" to show that it meets the standards of (c)(1).

In effect, the County is arguing that § 50.47(c)(1) allows minor deficiencies to be cured but not major ones like a county's refusal to participate. This view of the regulation simply cannot be squared with common sense or the purpose of the regulations.

2. The Per Se Rule Urged By the County Goes Against the Rule-making Record

The County's position that the failure of the local government to participate in emergency planning per se is fatal to an NRC licensing proceeding, no matter whether the public can be protected or not, goes against the grain of the rulemaking record. For the record shows that the Commission intended that "all factors" should be considered before a reactor would be shut down for deficiencies in emergency planning:

The Commission recognizes there is a possibility that the operation of some reactors may be affected by this rule through inaction of State and local governments or an inability to comply with these rules. . . . Relative to applying this rule in actual practice, however, the Commission need not shut down a facility until all factors have been thoroughly examined.

45 Fed. Reg. 55,404 col. 1 (Aug. 19, 1980).

The NRC considered, and rejected, the alternative of a per se rule that would have required immediate shutdown of a reactor if the local emergency plan had not received "NRC concurrence":

Under alternative B, shutdown of the reactor would be required automatically if the appropriate State and local emergency response plans had not received NRC concurrence within the prescribed time periods unless an exemption is granted.

After consideration of the public record and on the recommendation of its staff, the Commission has chosen a text for Sections 50.47 and 50.54(s) and (t) that is similar to, but less restrictive than, Alternative A in the proposed rule. Rather than providing for shutdown of the reactor as the only enforcement action and prescribing specific preconditions for the shutdown remedy, the final rule makes clear that for emergency planning rules, like all other rules, reactor shutdown as outlined in the rule is but one of a number of possible enforcement actions and many factors should be considered in determining whether it is an appropriate action in a given case. The Commission choice is consistent with most of the comments received from State and local governments and is consistent with local governments and is consistent with the provisions of Section 109 of the NRC fiscal year 1980 Authorization Act. Alternative B was seen by some of the commenters as potentially causing unnecessary harsh economic and social consequences to State and local governments, utilities, and the public.

45 Fed. Reg. 55,406-07 (Aug. 19, 1980). (Note that even the more restrictive alternative A would have allowed exemptions.) The County's interpretation of § 50.47 is even more extreme than the proposal that the Commission rejected in the rulemaking.

That § 50.47(c)(1) was intended to give the NRC considerable leeway is shown by the transcript of the July 23, 1980, Commission meeting. There the Commissioners are found debating whether the preamble to the rule should read "alternative equally effective compensatory action" instead of "alternative compensatory actions":25/

COMMISSIONER HENDRIE: Well, we have got a system in which we are trying through a nominally voluntary but coercive in the sense that we work against their electrical supply system a system to try to bring along state and local entities, government entities in the preparation of plans, emergency plans, the provision of equipment and of staff when they may very well preclude they would prefer to spend their money some place else.

The thing you are coercing them with we are going to shut down your reactor. I think to expect that in all of the states that may be concerned and all of the localities that may be concerned that you are going to get a wholesome, forthright and aggressive adherence to

25/ See NRC July 23, 1980, Tr. 12.

these guidelines as you might hope, it ain't going to work that way.

I think that in some places there are going to be plant [plan] deficiencies which are going to have to be endured for some time while one works out with those officials means to finance and continue to argue and eventually hopefully to persuade, or if not to persuade, to move up a couple of levels in the government and try to get some pressure.

CHAIRMAN AHEARNE: It is a balancing judgment for the Commission.

COMMISSIONER HENDRIE: What worries me is that the equally effective says that there is an acceptable level of emergency planning and you either hit or you shut down, and that is the level which is represented by the full rule and the guidelines enunciated in the staff guidance, and you are not going to allow anything which is in any sense less effective. All it allows is some way of meeting guideline 15 which the staff hasn't thought of and which after a lot of argument maybe FEMA and the staff could agree was equally effective.

What I am saying is you are going to have to contemplate some cases where indeed the alternative compensatory actions are going to result in an emergency plan probably less satisfactory in the sense of probable effectiveness in the case in need. Then you will eventually I trust get at that facility after a while when you are able to work out some of what I see is the inevitable difficulties.

I am willing to buy that and to say, yes, indeed, one looks at the plant, at what they have tried to do and what the measures are and how close it comes and

how badly you need things and the costs and everything else, and I am willing to buy off on a couple of years of a plant that isn't absolutely up, you know, that still misses by some little bit the full rigor of the rule and its implementing guidelines.

COMMISSIONER BRADFORD: Will you be saying when you do that, though, you will have to be saying that the deficiencies are more than insignificant because otherwise you get out under the first one, that the deficiencies are insignificant.

COMMISSIONER HENDRIE: Well, I will tell you, when people argue what is significant and insignificant in our proceedings, what I find is that no gnat is so small as not to be significant in somebody's eye. I have never met a board yet that was willing to say, no, that is insignificant. So I think any issue people want to raise in differences here are going to be matters that they should raise.

COMMISSIONER GILINSKY: Well, you have got something on the end that says whether other compelling reasons exist for reactor operation.

COMMISSIONER BRADFORD: The fact is that that would let you ignore even significant deficiencies with no alternative compensatory action. The trouble is we are not stuck with the damn phrase "alternative compensatory action" because it has become essential to define it in such a way as to satisfy the Congressional concerns. It may well be that the last phrase sweeps it up.

NRC July 23, 1980, Tr. 85-89 (emphasis added).

Likewise the Indian Point decision cited by the County (SC Br. 28-29) shows the Commission's continuing intent to look at the facts in deciding whether deficiencies in emergency planning are sufficient to shut down a reactor. Consolidated Edison Co. of New York (Indian Point Units 2 and 3), CLI-82-38 (Dec. 23, 1982). The Commission declined to shut down Indian Point in that decision, but the County finds comfort in it because the Commission's decision "relied upon the existence of the compensatory State plans and Rockland County's imminent development of its own plan" (SC Br. 29). The County suggests that the decision was a close one and distinguishes Shoreham based on the fact (1) that Suffolk County's nonparticipation is a greater burden to LILCO than Rockland County's is to Consolidated Edison and PASNY and (2) that the Governor of New York has said that the state "will not be a party to any effort to impose an independently developed State plan upon Suffolk County" (SC Br. 29 and Exhibit 5). But this simply shows how much a question of fact, not law, is the issue of compensating for emergency planning deficiencies. If there is one thing clear from all this it is that an applicant is entitled to try to prove that its own emergency planning efforts can protect the public.26/

26/ LILCO believes this result is required by the Due Process Clause. We acknowledge that the construction of a nuclear

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E. The Regulations Must Be Interpreted so as to Effect Their Purpose and so as to Avoid Violating the Federal Preemption Doctrine

Section IV.A.2 and IV.A.3 of the County's brief (SC Br. 17-25) are meant to show that the administrative record underlying the post-TMI emergency planning regulations reveals an agency intent that a local government-approved plan be an absolute requirement for an operating license. In fact the rulemaking record shows nothing of the kind.

The various passages cited by the County are, by and large, irrelevant to the issue now before this Board. These passages tend to show that offsite emergency planning is important and that it is important that local governments be involved. There is no argument about this; and there is no question that much of the rulemaking record addresses planning by local governments, because the Commission believed that local governments would cooperate. See 45 Fed. Reg. 55,414 col. 2, 55,417 cols. 2, 3 (Aug. 19, 1980). Therefore most of

(footnote continued)

plant is done at the licensee's own risk, with no guarantee that an operating license will be issued. But we believe there is a due process guarantee that the utility will be allowed to present evidence to show that the public will be adequately protected.

the passages cited by the County simply do not address the problem in the Shoreham proceeding of a county that will not cooperate.27/

There are some passages in the rulemaking record that do deal with the effect on operating licenses of States' or local governments' failing to meet NRC emergency planning standards. But even in these the Commission did not address in detail the complete, willful refusal of a local government to cooperate; it was addressing rather their inability to do so for lack of time or resources.28/

27/ Thus, for example, the Three Mile Island reports cited at SC Br. 18-20 address local government action because TMI was the problem they were dealing with and TMI involved local governments that wanted to implement an emergency plan but were unable to do so effectively.

28/ This is apparent from three things. First, the Commission said in so many words that it believed states and localities would cooperate. 45 Fed. Reg. 55,404 col. 1, 55,417 col. 1, 2-3 (Aug. 19, 1980). Second, the Commission suggested that the solution to such problems was for utilities to finance the governments' efforts. *Id.* 55,417 col. 1. Third, the Commission stated its belief that plant shutdowns would be infrequent and of short duration, *id.* 55,417 col. 2, which would not be the case if local governments began refusing to cooperate, as Suffolk County has, out of a belief that the risk of reactor operation is too great.

1. Purpose

But the fact that the NRC did not anticipate precisely the Suffolk County situation when it promulgated the rule does not mean the rule cannot be applied here. Rather, the rule must be interpreted broadly and liberally to effect its purpose, Baldrige v. Hadley, 491 F.2d 859 (10th Cir. 1974), cert. denied, 417 U.S. 910 (1974), reh. denied, 419 U.S. 886 (1974), and the intent of the agency, U.S. v. Miller, 303 F.2d 703 (9th Cir. 1962), cert. denied, 371 U.S. 955 (1963), and of Congress.^{29/} The purpose of the NRC is to have effective emergency planning; the purpose of SC is to ensure that emergency planning will not be done at all. The purpose of the NRC is to consider "all factors" before shutting down a reactor; the purpose of Suffolk County is to prevent the Commission from considering the facts at all. The purpose of the NRC is not to shut down a reactor if it meets the federal standard of reasonable assurance that the public is safe; the purpose of Suffolk County is to shut Shoreham down based on quite different criteria. In short, to accept Suffolk County's legal theory is to do violence to the purpose of the regulations.

^{29/} The intent of Congress is shown by the two NRC authorization bills, that for 1980 and that for 1982-83, discussed below.

2. Preemption

In section IV.A.3 of its supplemental brief the County says that the NRC has recognized that a local government may "affect" the operation of a nuclear plant. For example:

The staff recognizes this potential for a third party defacto [sic] veto power. The Commission is also aware of this.^{30/}

SC Br. 24, citing SECY-80-275, June 3, 1980, Enclosure L, Analysis of ACRS Comments, at 9.

The words "de facto" are crucial, and they cut directly against the County's argument that what is involved here is a purely legal barrier to emergency planning. It is certainly true that a locality's refusal to participate might prevent an adequate emergency plan from being implemented; but that is a question of fact.

The Commission, in the passage cited by SC at SC Br. 24-25, addressed this issue:

The Commission recognizes there is a possibility that the operation of some reactors may be affected by this rule through inaction of State and local governments or an inability to comply with these

^{30/} The industry witness, Mr. Owen, also referred to a "de facto veto." Statement of Warren H. Owen, June 25, 1980, at 8, bound into transcript of NRC June 25, 1980, ff. Tr. 131. Elsewhere he called it simply a "veto," but he appears to have meant the same thing.

rules. The Commission believes that the potential restriction of plant operation by State and local officials is not significantly different in kind or effect from the means already available under existing law to prohibit reactor operation, such as zoning and land-use laws, certification of public convenience and necessity, State financial and rate considerations (10 C.F.R. 50.33(f)) and Federal environmental laws.

45 Fed. Reg. 55,404, cited at SC. Br. 24-25.

The reference to zoning laws and the like is a sure sign that the Commission did not intend to give localities a de jure veto with its emergency planning regulations, because a long line of cases has established that States and localities may regulate nuclear plants through devices such as zoning laws, but not for the purpose of regulating radiological health and safety and not to the point of permanently shutting down an existing reactor. States and localities may regulate only on the "fringe"^{31/} of the area regulated by the Federal government.^{32/}

^{31/} Section 274 of the Atomic Energy Act, enacted in 1959, permitted States to regulate small quantities of nuclear materials by agreement with the NRC. Section 274(k), 42 U.S.C. § 2021(k), provides that § 274 is not intended to cut back on preexisting state authority outside the jurisdiction of the NRC. But the function of § 274(k) was "to leave room for [state laws] . . . dealing with matters on the fringe of the preempted area in light of all the provisions and purposes of the Atomic Energy Act . . ." Relationships in the Atomic Energy Field: Hearings Before The Joint Comm. on Atomic Energy, 86th Cong., 1st Sess. 306, 500 (1959). Commentators have placed in the "fringe" of the preempted area such matters

(footnote continued)

The doctrine of Federal preemption is based on the Supremacy Clause of the Constitution, U.S. Const. Art. VI, § 2. This doctrine forbids State regulation of an area if there is an express or implied exclusion by Congress of State jurisdiction.^{33/}

The Atomic Energy Act of 1954^{34/} granted the NRC exclusive authority to regulate the radioactive health and

(footnote continued)

as nuclear plant site selection, zoning, local pollution, building and equipment codes on nonradiation machinery, and working conditions of plant employees. See Lemov, State and Local Control Over the Location of Nuclear Reactors Under the Atomic Energy Act of 1954, 39 N.Y.U. L. Rev. 1008 (1964); Note, State Environmental Protection Legislation and the Commerce Clause, 87 Harv. L. Rev. 1762 (1974); Estep & Adelman, State Control of Radiation Hazards: An Intergovernmental Relations Problem, 60 Mich. L. Rev. 41 (1961).

^{32/} See 10 C.F.R. § 8.4 (1982).

^{33/} Express preemption occurs when Congress explicitly declares that its authority is exclusive. See, e.g., Rice v. Santa Fe Elevator Corp., 331 U.S. 218 (1947). In the absence of a federal statute explicitly prohibiting state regulation, an intent to preempt can be inferred from pervasive federal regulation or from a dominant federal interest. Maryland v. Louisiana, 451 U.S. 725, 746 (1981). Even if no congressional intent is found, state laws conflicting with federal law must be held invalid. A conflict exists where a state law "stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress." Hines v. Davidowitz, 312 U.S. 52, 67 (1941).

^{34/} Pub. L. No. 83-703, 68 Stat. 919.

safety aspects of nuclear power plants. The seminal decision analyzing the Atomic Energy Act, Northern States Power Co. v. Minnesota, 447 F.2d 1143 (8th Cir. 1971), aff'd mem., 405 U.S. 1035 (1972), holds that by enacting the Atomic Energy Act the Federal government unmistakably preempted State regulation of the radiological safety aspects of nuclear power plants and that State regulation of nuclear discharges was preempted by Federal law.^{35/}

Other cases are consistent with Northern States. In Consolidated Edison Co. v. Zoning Board of Appeals of the Village of Buchanan, No. 10811-75 (N.Y. Sup. Ct., Nov. 14, 1975),^{36/} the New York court held that the Village of Buchanan

^{35/} The courts have consistently adhered to the analysis in Northern States. See Train v. Colorado Public Interest Research Group, 426 U.S. 1, 15-17 (1976); Simmons v. Arkansas Power and Light Co., 655 F.2d 131 (8th Cir. 1981); Liesen v. Louisiana Power and Light Co., 636 F.2d 94 (5th Cir. 1981); Susquehanna Valley Alliance v. Three Mile Island Nuclear Reactor, 619 F.2d 231 (3d Cir. 1980), cert. denied, 449 U.S. 1096 (1981); County of Suffolk v. Long Island Lighting Co., No. 82-2045 (E.D.N.Y., Jan. 14, 1983); Township of Lower Alloways Creek v. NRC, 481 F. Supp. 443 (D.N.J. 1979); United States v. City of New York, 463 F. Supp. 604 (S.D.N.Y. 1978); City of Cleveland v. Public Utilities Comm'n, 64 Ohio St.2d 209, 414 N.E.2d 718 (1980); New Jersey Dept. of Environmental Protection v. Jersey Central Power & Light Co., 69 N.J. 102, 351 A.2d 337 (1976); Commonwealth Edison Co. v. Pollution Control Bd., 5 Ill. App.3d 800, 284 N.E.2d 342 (1972).

^{36/} As cited in Consolidated Edison Co. v. New York, Inc., (Indian Point Station, Unit 2), 5 NRC 1156, 1160-61 (1977).

could not deny a zoning variance for a cooling tower system which the operator of a nuclear power plant had been directed to seek by the Commission. The court found that the local regulation was preempted because the denial of a variance might lead to closing of the nuclear facility. The Appellate Division affirmed and directed the issuance of the variance. It held permissible only

limited regulation [by the Village] of local and incidental conditions with respect to the proposed facilities, in accordance with the Zoning Ordinance, so long as such regulation is reasonable and is not inconsistent with the construction of the proposed facility.

Consolidated Edison Co. v. Hoffman, 54 App. Div. 2d 761, 387 N.Y.S.2d 884, 885 (1976), aff'd on state law grounds, 43 N.Y.2d 598, 374 N.E.2d 105 Trustees of Indiana v. U.S., 618 F.2d 736, 739 (Ct. Cl. 1980). (1978).

Marshall v. Consumers Power Co., 65 Mich. App. 237, 237 N.W.2d 266, 276-77 (1975), is likewise consistent. The court said in Marshall that a state that required a power company to halt the construction of a power plant temporarily to abate a nonradiological nuisance would not be frustrating a federal mandate. But the court added an important proviso that if measures required by the state to abate the nuisance

made the construction of a nuclear power plant impossible, they could not be required. In such a case, the Federal interest would prevent state action from absolutely prohibiting the construction of nuclear power plants within its boundaries.

237 N.W.2d at 282.

Other cases affirm the position taken in Marshall that states cannot regulate the radiological aspects of nuclear power plant operation in a manner that would effectively prohibit an essential aspect of the construction or operation of the facility. In State v. Jersey Central Power & Light Co., 69 N.J. 102, 351 A.2d 337 (1976), the State Department of Environmental Protection initiated an action against a utility because of fish kills caused by a sudden water temperature change. The operator was charged with violation of a State statute prohibiting the discharge of a harmful substance into fresh waters. After noting that the NRC had authorized construction of the plant with its cooling water method, that the power company had received a Federal license to so operate, and that the license required the continued discharge of water even after it had turned cold, the court held that the state could not issue an injunction. Such interference by the State with "facets of nuclear power generation, regulation of which has been vested exclusively with the AEC," was not permissible.

351 A.2d at 344. See also Van Dissel v. Jersey Central Power & Light Co., 152 N.J. Super. 391, 377 A.2d 1244 (1977).^{37/}

Pacific Legal Foundation v. State Energy Resources Conservation & Development Comm'n, 659 F.2d 903 (9th Cir. 1981), cert. granted sub nom. Pacific Gas & Electric Co. v. State Energy Resources Conservation & Development Comm'n, _____

^{37/} One of the primary objectives of the Atomic Energy Act is to encourage widespread participation in the development and utilization of atomic energy for peaceful purposes to the maximum extent consistent with national security and public health. 42 U.S.C. § 2013(d); see Northern States Power Co. v. Minnesota, 447 F.2d at 1153. The Supreme Court has repeatedly recognized the congressional aim to encourage the commercial development of nuclear energy. See, e.g., Duke Power Co. v. Carolina Environmental Study Group, Inc., 438 U.S. 59, 63-64 (1978); Vermont Yankee Nuclear Power Corp. v. NRDC, 435 U.S. 519, 557-58 (1978).

The County's interpretation of the regulations would be an obstacle to the fulfillment of these objectives. Not only would the County's legal theory, if upheld, prevent Shoreham from operating, but if other localities used the same tactic Suffolk County has used, the result could be the virtual elimination of nuclear power as an energy source -- a result in direct conflict with the stated purpose of Congress in enacting the Atomic Energy Act. See Northern States Power Co. v. Minnesota, 447 F.2d at 1153-54. While Congress has not shown "an intent to promote nuclear power at all costs," Pacific Legal Foundation v. State Energy Resources Corporation & Development Comm'n, 659 F.2d at 926, one may not fairly conclude from this premise that the congressional purpose to encourage development of nuclear power is defeasible by a county. The development of nuclear power is a matter of national concern that may not be foreclosed or restricted by local decisions. See State ex rel. Utility Consumers Council v. Public Service Comm'n, 562 S.W.2d 688, 698-99 (Mo. App.), cert. denied, 439 U.S. 866 (1978).

U.S. ____, 102 S. Ct. 2956 (1982), has been touted by some as narrowing the field of federal preemption in the nuclear area.^{38/} However, that decision simply held that Congress did not intend to preempt state regulation for purposes other than protection against radiation hazards. In so holding, the court recognized the congressional intent to preempt state regulation of the radiation hazards of nuclear material. 659 F.2d at 922.

It is clear that in this case radiation hazards are exactly what Suffolk County is attempting to regulate. The County's Resolution No. 111-1983 makes this clear:

WHEREAS, evacuation times in excess of 10 hours -- and certainly evacuation times in the range of 14-30 hours -- will result in virtual immobilization of evacuation and high exposure of evacuees to radiation such that evacuees' health, safety, and welfare would not be protected; and

. . . .
RESOLVED, that the document submitted by LILCO to the DPC without the County approval or authorization, if implemented, would not protect the health, welfare, and safety of Suffolk County residents and thus will not be approved and will not be implemented

^{38/} The Ninth Circuit's decision in Pacific Legal Foundation is now before the Supreme Court and may not survive the year. But if it is reversed it will only strengthen LILCO's case.

These findings are based on nothing more than the calculated radiological consequences of certain postulated worst-case accidents at Shoreham, as a glance at either the County Executive's February 16 report or the Legislature's special counsel's draft report of February 17.

Indeed, the County has been quite blunt in stating that its purpose is to regulate radiological health and safety and to preempt Federal regulation. The draft report of the Suffolk County Legislature's special counsel makes this clear:

[I]n the absence of . . . a plan having full support of the County and its government, the public health and safety cannot be adequately protected. In keeping with this belief and in view of the unprecedented nature of the issues raised in determining the adequacy of a radiological emergency response plan, the Suffolk County Legislature has vested in itself the ultimate authority of approving or disapproving such a plan.

Draft Report 1-2 (emphasis added). County Resolution No. 111-1983 also makes apparent that Suffolk County is attempting to preempt the Federal government:

RESOLVED, that since no radiological emergency plan can protect the health, welfare, safety of Suffolk County residents and, since no radiological emergency plan shall be adopted or implemented by Suffolk County, the County Executive is hereby directed to take all actions necessary to assure that actions taken by any other governmental agency, be it State or Federal, are consistent

with the decisions mandated by this Resolution.

(Emphasis added). This attempt to apply the law of preemption in reverse should not be permitted by this Board.^{39/}

We would expect the County to argue that Federal preemption depends on the Federal agency's pervasive regulation of the preempted field, and that in this particular area the NRC has ceded part of its authority to localities by means of the

^{39/} It is plain that what the County has done is to set itself up as an alternate NRC to make alternate findings of fact. The County Legislature held hearings in which it considered calculated doses to the public from various core-melt accidents greater than the design basis events for Shoreham. On the basis of these calculated radiological consequences, and taking into account (says the County) the population, geography, and meteorology of the Shoreham site, the County concluded as a matter of fact that the public cannot be adequately protected from a radiological accident at Shoreham. What the County has done, in short, is to make the Shoreham siting decision over again, using criteria altogether different from 10 CFR Part 100, and to change the licensing design basis of the plant.

The County's analysis is based in part on a 20-mile EPZ instead of the 10-mile EPZ in the NRC regulations. (This makes evacuation slower and contributes to the finding that the public cannot be adequately protected.) Thus, the County challenges both 10 CFR Part 100 and 10 CFR § 50.47 at once. But it does so not by challenging the regulations before the ASLB but rather by holding its own hearings and, in effect, arguing that its findings of fact are binding on the NRC because of the emergency planning regulations.

In short, what the County has done is simply set itself up as the fact-finder and licensing authority instead of the NRC. A bolder intrusion into the federally regulated area can hardly be imagined.

emergency planning regulations. But the NRC could not legally do so, because it is prohibited by §§ 271 and 274(c)(1) of the Atomic Energy Act.

Section 274(c)(1) states that the NRC must retain authority to regulate "the construction and operation" of nuclear reactors:

No agreement entered into pursuant to subsection (b) shall provide for discontinuance of any authority and the Commission shall retain authority and responsibility with respect to regulation of --

(1) the construction and operation of any production or utilization facility

42 U.S.C. § 2021(c)(1) (emphasis added). Section 271 of the Act also addresses State versus Federal authority:

Sec. 271. AGENCY JURISDICTION. --
Nothing in this chapter shall be construed to affect the authority or regulations of any Federal, State, or local agency with respect to the generation, sale, or transmission of electric power produced through the use of nuclear facilities licensed by the Commission: Provided, that this section shall not be deemed to confer upon any Federal, State, or local agency any authority to regulate, control, or restrict any activities of the Commission.

42 U.S.C. § 2018 (emphasis added).

LILCO does not suggest that this Board can overrule an NRC regulation because it fails to comply with §§ 271 and 274 of the Atomic Energy Act, but this Board may, and is called

upon here to, interpret the NRC regulations. And regulations should be interpreted so as to avoid raising doubt as to their validity. Northern Natural Gas Co. v. O'Malley, 277 F.2d 128 (8th Cir. 1960). As shown above, a construction of NRC rules that gave local governments a veto over power plant operation would certainly throw the validity of those rules into question.

F. LILCO Is Entitled to the Opportunity to Show an Exception to the Regulations Under 10 C.F.R. § 2.758(b) and § 50.12(a) and to Have a Low-power License Under § 50.57(c)

Even if the County were correct in its reading of § 50.33(g) and § 50.47, it ignores the fact that LILCO is entitled to show that it qualifies for an exemption from a particular regulation. The Commission's regulations provide this opportunity in 10 C.F.R. § 2.758(b), which reads as follows:

(b) A party to an adjudicatory proceeding involving initial licensing subject to this subpart may petition that the application of a specified Commission rule or regulation or any provision thereof, of the type described in paragraph (a) of this section, be waived or an exception made for the particular proceeding. The sole ground for petition for waiver or exception shall be that special circumstances with respect to the subject matter of the particular

proceeding are such that application of the rule or regulation (or provision thereof) would not serve the purposes for which the rule or regulation was adopted. . . .

10 C.F.R. § 2.758(b) (1982). Similarly, 10 C.F.R. § 50.12(a) provides:

(a) The Commission may, upon application by any interested person . . . , grant such exemptions from the requirements of the regulations in this part as it determines are authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest.

If it were the case that LILCO were prohibited from making its factual case under 10 C.F.R. § 50.47, the emergency planning regulation, the Board may be assured that LILCO would ask for an opportunity to petition that the regulation be waived or an exception be made under 10 C.F.R. § 2.758(b) or § 50.12.

In the event the County's refusal to cooperate did make it impossible to meet § 50.47, the exception provisions of § 2.758(b) and § 50.12(a) would be tailor-made for the problem, because the Commission's assumption underlying the emergency planning regulation has now been shown to be inappropriate here. As the Commission said in its preamble to the final rule:

The Commission believes, based on the record created by the public workshops, that State and local officials as partners in this undertaking will endeavor to provide fully for public protection.

45 Fed. Reg. 55,404 col. 1 (Aug. 19, 1980).

Finally, LILCO believes it could qualify for a low-power license under 10 C.F.R. § 50.57(c) notwithstanding the County's refusal to have an emergency plan. Indeed, under 10 C.F.R. § 50.47(d) "no NRC or FEMA review, findings, or determinations concerning the state of offsite emergency preparedness or the adequacy of and capability to implement State and local offsite emergency plans are required prior to issuance of an operating license authorizing only fuel loading and/or low power operations (up to 5% of the rated power)." 47 Fed. Reg. 30,236 col. 1 (July 13, 1982).

G. The Significance of Section 5 of the 1982-83 NRC Authorization Act

In section IV.C of its brief Suffolk County argues that § 5 of the 1982-83 NRC Authorization Act, Pub.L. No. 97-415, 96 Stat. 2067, does not authorize the NRC to "disregard the requirements of 10 C.F.R. §§ 50.33(g) and 50.47" (SC Br. 30-31). Section 5 reads as follows:

[T]he Nuclear Regulatory Commission may use such sums as may be necessary, in the absence of a State or local emergency preparedness plan which has been approved by the Federal Emergency Management Agency, to issue an operating licence . . . for a nuclear power reactor, if it determines that there exists a State, local, or utility plan which provides reasonable assurance that public health and safety is not endangered by operation of the facility concerned.

Pub. L. No. 97-415 § 5. The County's argument is that § 50.47 was enacted with the knowledge of statutory language identical to § 5 and that the Commission chose not to exercise the full scope of the authority Congress had conferred.

The County's statement of the second legal issue as whether the Authorization Act would allow a Licensing Board to "disregard" NRC regulations is really beside the point, because § 5 and § 50.47 are consistent. The Commission said as much in the Federal Register notice of the final rule:

In deciding whether to permit reactor operation in the face of some deficiencies, the Commission will examine among other factors whether the deficiencies, are significant for the reactor in question, whether adequate interim compensatory actions have been or will be taken promptly, or whether other compelling reasons exist for reactor operation. In determining the sufficiency of "adequate interim compensatory actions" under this rule, the Commission will examine State plans, local plans and licensee plans to determine whether features of one plan can compensate for

deficiencies in another plan so that the level of protection for the public health and safety is adequate. This interpretation is consistent with the provisions of the NRC Authorization Act for fiscal year 1980, Pub L. 96-295.

45 Fed. Reg. 55,403 col. 1 (Aug. 19, 1980) (emphasis added).

As the County points out, the words of § 109 of the 1980 Authorization Act were the same as § 5 of the 1982-83 Act.

What exactly does "consistent" mean here? The County apparently thinks it means that § 50.47(c)(1) stays well within the bounds of the authority granted by § 5. This interpretation is based on the expressed fears of industry representatives and Senate staff members that the proposed regulations did not go as far as § 109 of the 1980 Authorization Bill would have allowed.

The County's theory is based also on the legal advice to the Commission by its General Counsel, Mr. Bickwit, who repeatedly opined^{40/} that the Commission need not go as far as § 109 would allow. For example, the exchange went like this in the passage cited by the County:

^{40/} Besides the passage quoted below, see NRC June 25, 1980, Tr. 49; NRC July 3, 1980, Tr. 41-42; SECY-80-220, Apr. 29, 1980.

MR. BICKWIT:

Their [that is, members of the majority staff of the Senate Nuclear Regulation Subcommittee] concern was that under the rule as drafted it was not clear to them that the Commission contemplated that in the absence of a plan, of a state or local plan which fully complied with the requirements of the rule that the Commission intended to look at the utility's plan to see whether that plan could compensate for the deficiencies of the state and local plans.

They said it was a central feature of the agreement reached in conference that that would be the case.

CHAIRMAN AHEARNE: Their concern was that our rule was too harsh?

MR. BICKWIT: That is true.

CHAIRMAN AHEARNE: Their interpretation of the Congressional action was that a more flexible rule was intended by the Congress?

MR. BICKWIT: That is correct. I told them, as I have told the Commission, that the way our office has read the legislation that the legislation provides for minimum requirements for a rule and therefore the Commission is free from a legal standpoint to be as stringent as it chooses to be under the law. They disagreed with that assessment.

Others I have spoken to on the Hill have expressed agreement with that.

NRC July 23, 1980 Tr. 5, cited at SC Br. 33. But the County

does not take into account the later pages of the same transcript that show that the Commission intended § 50.47(c)(1) to effect the intent of Congress all along and added words to the Federal Register notice to make that clear:

MR. BICKWIT:

I told them [the Senate Nuclear Regulatory Subcommittee Staff] that I believed it was the Commission's view that one of the alternative compensatory actions that might be looked at would be the actions taken by a utility in any kind of utility plan that might compensate for the deficiencies. I asked them if the Commission were to include language that specifically stated that intent it would make the rule consistent in their view with the intent of the Congress as they saw it, and they said yes.

. . . .

Now, I want to reiterate my view that whether or not the Commission chooses to do that is not a legal matter. As I read the legislation and the supporting legislative history, the Commission is free to go beyond the minimum requirements set by the Congress.

. . . .

However, if it is the Commission's view that alternative compensatory actions would include a look at the utility's plan to see whether that plan was in fact compensatory, then I would suggest stating that in the supplementary information associated with the rule. I have proposed some language which you have before you as Enclosure 1.

NRC July 23, 1980, Tr. 6-8.

"Enclosure 1" is included in the transcript of the July 23 meeting. As modified by the Commissioners, it reads as follows:

In determining the sufficiency of "adequate interim compensatory actions" under this rule, the Commission will examine State plans, local plans or licensee plans to determine whether features of one plan can compensate for deficiencies in another plan so that the level of protection for the public health and safety is adequate. This interpretation is consistent with the provisions of the NRC Authorization Act for FY 1980, Pub.L. 96-295.

NRC July 13, 1980, Enclosure 1, ff. Tr. 135. The discussion went on:

CHAIRMAN AHEARNE: So what you are saying is that you are confident that the majority staff of the Senate subcommittee would agree that the language that you have is consistent with the intent of the Congress?

. . . .

COMMISSIONER GILINSKY: You are now referring to Enclosure 1?

MR. BICKWIT: I am referring to Enclosure 1.

Enclosure 1 was included in the Federal Register notice when the emergency planning rules were promulgated.^{41/} 45 Fed. Reg.

^{41/} A comma was added and the "or" was changed to "and."

55,404 col. 1 (Aug. 19, 1980).

Elsewhere the transcript of the July 23 meeting, in passages set out in section IV.D of this brief above, shows that the Commissioners addressed the possibility that localities might not provide "wholesome, forthright, and aggressive adherence" to the emergency planning guidelines and said that even significant deficiencies might be tolerated for compelling reasons. Clearly § 50.47(c)(1) is intended to be a broad provision allowing the Commission to look at all the circumstances.

One further piece of information is pertinent to the Board's consideration of this issue. The County says that "Section 5 and 109 are identical in purpose and intent" (SC Br. 32). Since, as shown above, § 50.47(c)(1) was promulgated to be consistent with the intent of Congress in § 109, evidence of the intent behind § 5 ought to be relevant to the intent of § 109 and thus to the intent of the regulation. Some weight should be given, then, to part of the legislative history of § 5, namely certain remarks that Representative Lujan had inserted in the Congressional Record while the 1982-83 Authorization Bill was being considered:

Frankly, these provisions -- allowing a utility to file an onsite plan for a temporary operating license, and allowing the NRC to determine that an adequate

offsite plan of a utility exists in the absence of a FEMA-approved State or local plan for a final, full power license -- were included to insure that Federal preemption in the area of nuclear power would not be frustrated in the emergency planning area by foot dragging on the part of a reluctant State or locality. The wisdom of including such Federal provisions is understood by the situation which we understand exists in one district where a county has sued to try to enjoin its State from approving an emergency plan. The clear language of the statute and our intent throughout the legislative process was to insure that a plant could operate if there existed some plan -- State, local or utility sponsored -- providing reasonable assurance of the public health and safety.

Cong. Rec. E5060-61 (Dec. 10, 1982) (emphasis added).

All this goes to show that 10 C.F.R. § 50.47(c)(1) does just what it says -- gives the utility the opportunity to demonstrate for a variety of reasons that it should have an operating license despite failures to meet the § 50.47(b) standards.

Indeed, the County's contrary interpretation of the regulation makes no sense when viewed against the Commission's statutory mandate. Singularly absent from the County's brief is any policy reason supporting its legal theory -- any reason, that is, why the NRC would have wanted to give a veto to local governments. The reason cannot be that only local governments

can adequately protect the public, for all LILCO asks is a chance to prove that that is not so. In fact, no policy that the NRC is to serve under the Atomic Energy Act suggests itself as a reason for doing what the County claims the Commission did.

The County ignores the fact that the purpose of this proceeding, and of the NRC, is to protect the public health and safety and attempts to avoid ever reaching that issue. To that end it has moved the Board to stop the NRC hearings on the subject, even as it moved to enjoin the New York DPC from finishing its review of LILCO's offsite plan and from passing it on for FEMA review. What we have shown in this brief is that there is no support in the NRC regulations for this latest County effort to thwart the NRC licensing process.

V. CERTIFICATION

The law of certification was summarized recently by the ASLB in Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), Memorandum (Nov. 17, 1982), slip op. 2-3:

The Commission's Rules of Practice contain a general prohibition against interlocutory appeal. 10 C.F.R. § 2.730(f). Nevertheless, there is an exception. The regulations permit discretionary interlocutory review, either by Licensing Board certification or Appeal Board directed certification,

where it is demonstrated that failure to resolve the issue immediately will cause "detriment to the public interest or unusual delay or expense." The Appeal Board, however, has left little doubt that such review is truly exceptional. The Appeal Board has stated that it will rarely take interlocutory review and only then where a Licensing Board's ruling "either (1) threatened the party adversely affected by it with immediate and serious irreparable impact which, as a practical matter, could not be alleviated by a later appeal, or (2) affected the basic structure of the proceedings in a pervasive or unusual manner" Public Service Company of Indiana, Inc. (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-405, 5 NRC 1170, 1191 (1977).

LILCO sees three separate questions involved in the County's motion for certification. First, should the Licensing Board make a decision on the legal issues? Second, if so, should there then be expedited review of the Board's decision by the Appeal Board or the Commission? Third, if so, should the first review be by the Appeal Board, or should the Appeal Board be skipped and the question sent directly to the Commission?

LILCO's view on these issues is that the Board should decide the issue; that interlocutory review is not necessary or desirable; and that if nonetheless expedited review is sought, the Commission rather than the Appeal Board should do it.

A. The ASLB Should Decide the Issue

LILCO believes that there is a real and substantial benefit to be gained by having the Board give its opinion on the legal issue presented here. When certification is directed by the Appeal Board, the certification is not granted unless the Licensing Board has first had a reasonable opportunity to decide the question as to which certification is sought first. Toledo Edison Co. (Davis-Besse Nuclear Power Station), ALAB-297, 2 NRC 727, 729 (1975); see also Project Management Corp. (Clinch River Breeder Reactor Plant), ALAB-330, 3 NRC 613, 618-19 (1976), reviewed and reversed in part on other grounds sub nom. U.S.E.R.D.A. (Clinch River Breeder Reactor Plant), CLI-76-13, 4 NRC 67 (1976). This Board has presided over these proceedings for almost a year now and knows the parties and the issues well. It is familiar with the history of emergency planning in this case. It is hard to imagine that the Appeal Board or Commission would not welcome the views of this Board.

B. There Is No Need for Expedited Review

The County's reason for wanting immediate Commission review is apparently that the legal issues here are important

ones of first impression and that they could, if decided in the County's favor, end the proceeding. As to the first point, Licensing Boards are perfectly qualified to decide important issues and, in this instance, LILCO believes the Commission's intent has been made quite clear, particularly as to the point that 10 C.F.R. § 50.47(c)(1) is to give the applicant an opportunity to present his evidence, so that the Board can be confident it is construing the regulation correctly.

In any event, the Commission is aware of the events in this docket and has said it will act if action is appropriate. In a letter of March 10, 1983, to the Suffolk County Executive, the General Counsel of the NRC said:

[T]he Licensing Board has taken steps to further focus the positions of the various parties by requiring further filings concerning the development of an offsite emergency plan. The Commission will be studying those submissions carefully in an effort to determine whether Commission action may be appropriate.

As for the second point, the only reason for deciding now whether or not the County wins the case on a legal point is to save the County the trouble of litigating the factual issues in the event that the Board rules for LILCO and is eventually overruled by a higher body. But the trouble and expense of litigating a case is not such harm as will justify departure

from the usual rules and procedure. See Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Units 1 & 2), ALAB-706 (Dec. 15, 1982), slip op. 8 n.7 (time and expense of litigating contentions do not alone warrant Appeal Board's interlocutory involvement). In any event, after putting everyone through almost a year of hearings on other issues, the County is ill-placed to claim that the litigation of emergency planning is too troublesome.

C. Who Should Perform Expedited Review,
If It Is Performed

Assuming that the Board decides, contrary to our argument above, that its decision on the legal issue should be reviewed by a higher body immediately, that higher body should be the Commission itself. True, it is the Appeal Board that exercises the Commission's authority in the first instance in certifications under 10 C.F.R. § 2.718(i). Vermont Yankee Nuclear Power Corp. (Vermont Yankee Nuclear Power Station), ALAB-56, 4 AEC 930 (1972). But in this case LILCO believes it would be appropriate to short-circuit the appeal process somewhat. Once the Licensing Board has rendered a decision, there is little need for a second opinion to help the Commissioners focus the issues. The uniqueness of the ASLB is that it is

closest to the case and best informed about it. This cannot be said of the Appeal Board. Indeed, the Commission itself, which has indicated it is following the Shoreham case closely, is probably better informed at present than the Appeal Board. If there is to be an interlocutory appeal, then, in the interest of speeding up a process that will almost surely end up in the Federal courts, the Commission should take the case directly from the Licensing Board.

VI. THE LITIGATION SHOULD PROCEED
ON THE FACTUAL ISSUES, NO MATTER WHAT

Whether or not the Board decides the legal issues first or certifies them without decision to the Appeal Board or Commission, LILCO believes that, immediately upon the Board's decision on the merits or decision to certify the drafting of contentions and the continuation of discovery on emergency planning should go forward.

Any further delay in this proceeding is likely to result in detriment to LILCO. The history of this proceeding shows that, the more important the issue to the County, the longer it takes to litigate it. Issue 7B took from May 4 through July 22 and is still not finished; Quality Assurance took from September 14 through February 23. Emergency planning, which by

all accounts is the County's most important issue, could take even longer. No matter what the ultimate fuel load date of the plant, the litigation of the factual issues is unlikely to be finished by then, and certainly not if litigation halts while the County pursues its legal theories.

LILCO therefore suggests that two weeks from the date the Board decides the County's motion to terminate, the County and other parties should have their draft contentions on the LILCO offsite plan in the hands of the other parties for discussion. One week later final contentions and objections to them should be filed with the Board. The rest of the litigation should proceed briskly from that point on.

When the time for filing testimony arrives, LILCO believes the parties who have raised contentions should file first, and the parties defending against those contentions should file sometime later. This nonsimultaneous filing of testimony would help to focus and streamline the proceeding. Time and time again in this proceeding the Board and parties have been faced with contentions the meaning and scope of which were unclear. Only the filing of testimony, (and sometimes not even that, as witness the QA issues) seems to elicit from the County what its concerns really are. With offsite planning, as with other issues, we are in a situation in which the essence

of LILCO's case is well documented -- the LILCO offsite plan has been in the other parties' hands for months, and much of it was written by the County's own employees -- while we have little indication what the County's case will be other than its belief that emergency planning for Shoreham is impossible. The County and other intervenors should therefore file their testimony first and LILCO be allowed to reply with testimony of its own.

LILCO suggests that it may be desirable to hold the offsite emergency planning litigation in several phases. The first phase would decide whether the LILCO offsite plan is adequate, focusing on the functions described in the plan and the means to accomplish them. The second phase would decide any contention about implementation (who will perform the functions), which we would expect to arise because Suffolk County officials will refuse to prepare for emergency planning in advance.^{42/} (Apart from "role conflict" questions, we do

^{42/} In some cases the adequacy of the plan and the feasibility of implementation may be inextricably intertwined. For example, the plan contains a certain evacuation plan that depends on Suffolk County police to direct traffic. If Suffolk County were able to prove the plan unacceptable because the police would not report (the implementation issue), then the plan might have to be changed. These sorts of situations can be dealt with as they arise, much as the Board dealt with the need to distinguish Phase I contentions from Phase II earlier in this proceeding.

not expect the County to allege that its officials and employees would stand idly by in an actual emergency merely because the County has decreed that emergency planning is impossible.) We would expect Phase 2 to cover "interim compensating actions" under 10 C.F.R. § 50.47(c)(1).

The third phase of the litigation would occur only if LILCO were unable to meet its burden of proof in Phases 1 and 2; in that event LILCO would ask for an exemption from the regulations and expect to present either legal arguments or evidence, or both, justifying such an exemption. Probably Phase 3, if it occurred, would involve 10 C.F.R. § 2.758(b), 10 C.F.R. § 50.12(a), or a showing that deficiencies are not significant or that there are "other compelling reasons" under 10 C.F.R. § 50.47(c)(1).

LILCO would anticipate that written testimony would be filed on a rolling schedule depending on how long the hearings on each phase were taking. In every case the intervenors should file their testimony first, and LILCO subsequently.

VII. THE STATE'S POSITION ON EMERGENCY PLANNING FOR SHOREHAM

In its "Confirmatory Memorandum and Order Directing the Submission of Briefs Addressing Suffolk County's Motion to

Terminate This Proceeding," dated February 28, 1983, the Board directed the parties to include in their briefs "each party's understanding of the position which the State of New York has taken or will take with respect to the review, litigation and/or implementation of LILCO's proposed offsite emergency plan." Board Order at 4. The Board issued a second order on February 28, 1983, entitled "Memorandum Requesting Submission of Views of New York State on Emergency Planning."

LILCO counsel inquired of the State and learned that as of the date of that inquiry the State had not yet taken a position. LILCO cannot predict what the final position of the State on emergency planning for Shoreham will be. Several points, however, are worth noting.

Prior to December 8, 1982, the LILCO offsite plan was submitted to the Disaster Preparedness Commission staff for review. It is LILCO's understanding that the plan passed muster when compared by the reviewers to applicable regulations, and that the DPC was prepared to recommend that the plan be forwarded to FEMA. The County persuaded a court to enjoin the meeting at which that recommendation would have been made. Subsequent to the initial injunction, LILCO, the County, and the State entered into a stipulation by which the DPC refrained from taking further action before February 23, by which time it

was assumed the County Legislature would have come to some decision regarding its own offsite plan. As noted above, the County Legislature declined to approve any offsite plan for Shoreham on February 17, 1983.

That same day the Governor of New York issued a statement announcing that he had directed that the DPC not forward to FEMA the LILCO offsite emergency plan. Governor Cuomo's statement also said that he would not be a party to any effort to impose an independently developed State plan upon Suffolk County, but concluded that the State "stands ready and willing to cooperate in any way possible" with Suffolk County and LILCO "to develop an adequate and implementable evacuation plan for Shoreham."

LILCO also notes that New York State laws impose a duty upon the State both to prepare emergency plans and to act in the event of an actual emergency at Shoreham. First, the Governor has the power to declare a disaster emergency by executive order, directing chief executives in emergency services organizations to respond. N.Y. Exec. Law § 28 (McKinney Supp. 1980) (hereinafter Executive Law § __). Second, Executive Law §§ 21.3.C and 22.1 make it clear that the State Disaster Preparedness Commission is required by law to create a state emergency plan:

Section 21.3. The Commission shall have the following powers and responsibilities:

-
- c. prepare state disaster preparedness plans, to be approved by the governor, and review such plans and report thereon by March thirty-first of each year to the governor and the legislature. In preparing such plans, the commission shall consult with federal and local officials, emergency service organizations, and the public as it deems appropriate;
-

Section 22. State disaster preparedness plans

1. The commission shall prepare a state disaster preparedness plan and submit such plan to the governor for approval no later than one year following the effective date of this act. The governor shall act upon such plan by July first of that year. The commission shall review such plans annually.

Pursuant to these sections, there is in fact a State Disaster Preparedness Plan. On page I-11 of that Plan, under "State Government," the Plan states that "the State also shall take the necessary actions to respond in those instances where a county does not have the capability to implement all or part of its Radiological Emergency Response Plan, or the Chief Executive of a county does not elect to put such a plan into effect." This language appears throughout the State Plan, in

conjunction with provisions for the State to implement action required for emergency preparedness. Thus, under the State Disaster Preparedness Plan, the State has a duty to "take the necessary actions to respond."

Finally, the State Plan also provides on page A-2, Part III, § 1 at 3.4 that "[t]he Director of the Radiological Emergency Preparedness Group, in instances where a county does not review and update its Radiological Emergency Response Plan at appropriate intervals, will perform such reviews and incorporate necessary revisions after consultation with the county's Chief Executive, other local officials designated by him, and affected State agencies." The State presently has in its files the now-outdated 1978 County emergency response plan, which the State has a duty to revise.

Thus, it appears that the State will be required to act regarding emergency planning at Shoreham. It is difficult to predict at this juncture, however, exactly what that action will be.

VIII. CONCLUSION

The short of the matter is that the NRC regulations, the rulemaking record underlying them, and the 1982-83 Authorization Act all combine to show that LILCO is entitled to

present evidence to show that offsite emergency planning, no matter who does it, is adequate to protect the public. LILCO is ready to go forward with the litigation of that issue. Suffolk County seeks to prevent the issue from ever being heard. The Board should rule for LILCO and allow the parties to get on with the litigation of the factual issues.

There is no need to certify anything to the Commission at this point. The law is sufficiently clear on the point that LILCO's hearing rights are not to be automatically cut off merely because a local government says they must be. The Commission has said it is keeping informed about the events in this docket, and it will doubtless say something quickly if it disagrees with the Board's handling of the legal issue. Unless it does, the proceeding should go on according to the usual procedures.

Respectfully submitted,

LONG ISLAND LIGHTING COMPANY

James N. Christman

W. Taylor Reveley, III

James N. Christman

Kathy E. B. McCleskey

Hunton & Williams
707 East Main Street
P.O. Box 1535
Richmond, VA 23212

DATED: March 18, 1983

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

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

LILCO'S BRIEF IN OPPOSITION TO
SUFFOLK COUNTY'S MOTION TO TERMINATE
THIS PROCEEDING AND FOR CERTIFICATION

March 18, 1983

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

Volume Two of Two:
Attachments



COUNTY LEGISLATURE

FERDINAND J. GIESE
COUNTY LEGISLATOR, FIFTH DISTRICT

149 MAIN STREET
EAST SETAUKET, NEW YORK 11733-2699
(516) 689-8500

CHAIRMAN
SENIOR CITIZENS COMMITTEE

MEMBER
PUBLIC SAFETY COMMITTEE
VETERANS AFFAIRS COMMITTEE
FINANCE, LEGISLATIVE AND PERSONNEL
FINANCE COMMITTEE
FARM AND FORESTRY AND RURAL DEVELOPMENT
COMMITTEE
FOUR COMMITTEE
HEALTH AND GENERAL SAFETY BOARD

January 19, 1983

Mrs. Deborah Schechner, President
Peoples Action Coalition of Suffolk County
P. O. Box 27
Shirley, New York 11967

Re: Shoreham Evacuation

Dear Mrs. Schechner:

I am in receipt of your letter dated January 6th in relation to the above-referenced topic.

As you will remember, I openly expressed my displeasure of Legislator Prospect introducing legislation relative to the Shoreham Plant. I maintained at the time that the most simple and direct answer to the problem would be institution of legal action by the County of Suffolk at the time the N.R.C. decides to issue the license and demanding that LILCO prove the effectiveness of a viable Evacuation Plan. It stands to reason they could not do so in a million years and then, in my way of thinking, they could not activate the plant.

The purpose of Mr. Prospect's resolution, as I see it, was to spend four million dollars of taxpayers' money, not counting the untold millions that will be paid in the event any so-called Evacuation Plan is implemented.

I understand your position that the plan should not be adopted; however, the reasoning behind the hearings for a so-called plan, at the present time, is to use the facts presented as a basis for a future lawsuit. In this case, Legislator Prospect has saddled the people with an expense that is atrocious, unreasonable and, in my humble opinion, with no affirmative result in the future. On the other hand, were the Legislators to agree that, as elected officials, we should reject the plan, we are in effect indicating that we do not cherish human life and have no desire to protect our constituents. On the basis of this assumption, Legislators have no other

Mrs. Deborah Schechner, President

January 19, 1983

- 2 -

alternative but to vote in the affirmative.

There is no longer a simple solution to this problem because of the political maneuverings of one individual. I regret the situation that we are confronted with but we have no other alternative. I have been criticized for voting for the original resolution; however, how was it possible to vote "no" and give the impression that I was in favor of the LILCO operation.

I thank you for the comments in your letter and I assure you of my continued interest in the safety of all constituents throughout Suffolk County.

Sincerely yours,

FERDINAND J. GIESE
County Legislator
5th District

FJG:gfk

cc to: All Suffolk County Legislators

COUNTY OF SUFFOLK

ATTACHMENT 2



John V. N. Klein
COUNTY EXECUTIVE

December 31, 1979

Ira L. Freilicher, Vice President
Long Island Lighting Company
250 Old Country Road
Mineola, New York 11501

Re: Memorandum of Understanding - Shoreham

Dear Ira:

Enclosed herewith is a photocopy of the original Memorandum of Understanding between the Long Island Lighting Company and the County with respect to emergency planning at Shoreham.

With the addition of paragraph 1, providing for mutual termination on ten days notice, I have signed the agreement and made the County Executive-elect Peter Cohalan aware of such action, with which he is in agreement.

If you wish a copy executed in original, I would be glad to do so.

Sincerely yours,

John V. N. Klein
Suffolk County Executive

JVNK:ds
Enclosure

cc: Honorable Peter F. Cohalan
Suffolk County Executive-Elect

MEMORANDUM OF UNDERSTANDING
BETWEEN
SUFFOLK COUNTY, NEW YORK
AND
LONG ISLAND LIGHTING COMPANY
ON
EMERGENCY PLANNING

11/11 3 1970

In order to comply with 10CFR50 Appendix E IV(D) and to provide for efficient and timely implementation of protective actions should they ever be required as a result of an accident at the Shoreham Nuclear Power Station (SNPS), Suffolk County (County) and the Long Island Lighting Company (LILCO) have reached the following agreements and understandings:

- A. The (LILCO) Emergency Plan defines accident conditions and delineates responsibilities and duties of the SNPS staff in the event of a potential radiological incident. The Emergency Plan Implementing Procedures will be implemented whenever conditions exist which have a significant probability of leading to elevated levels of radiation which might result in an onsite or offsite personnel hazard, and/or environmental concern. Certain nonradiological events at the plant may also result in activating portions of the emergency organization. Emergencies have been separated into five classifications which are explained in detail in Section 13.3 SNPS FSAR.

- B. LILCO is responsible for the protective action of notifying the following persons onsite and in the immediate vicinity of the site in the event of an emergency:
 - 1. All persons whether LILCO employees or visitors within the "owner controlled area" of the site,
 - 2. All persons on the jetties or on the shore-front that is part of the Shoreham site,
 - 3. All persons within the LILCO owned portion of the Wading River marsh on the northeast portion of the site, and
 - 4. All persons associated with the St. Joseph's Villa located on the Shoreham West site.

- C. The County is responsible, in support of New York State, for the notification and protective action of all members of the public not specifically included in B, above.

- D. LILCO agrees to notify the Emergency Operations Center (EOC) or Warning Point, using the National Alert Warning System (NAWAS) under the following circumstances:
1. Upon declaration by the LILCO Emergency Director of a Plant Emergency as defined in Section 13.3.3.1.3 of the SNPS FSAR where significant potential exists for the emergency to become a Site or General Emergency, as defined in Sections 13.3.3.1.4-5,
 2. Upon declaration by the LILCO Emergency Director (within 15 minutes) of a Site Emergency or a General Emergency,
 3. LILCO agrees to notify the County in a timely fashion (within 3 hours) upon a serious incident, regardless of whether such incident involves releases of radioactivity and LILCO also undertakes to notify the County of events which could, mistakenly or otherwise, be construed as a radiological incident, and
 4. Upon dispatch from the site of injured or sick personnel who are contaminated with radioactivity and who are being transported to a local hospital (within 3 hours).
- E. LILCO will install and maintain at its expense a dedicated telephone line connected to the NAWAS. Three telephones will be installed onsite, in the (1) Control Room, (2) Onsite Emergency Control Center, and (3) Alternate Onsite Emergency Control Center. The County will provide a terminal for this line in its NAWAS system located in its Emergency Operations Center in Yaphank, New York.
- F. In the event of a Site or General Emergency, LILCO agrees to notify the County Warning Point and to provide the following information:
1. Location and type of emergency,
 2. Caller's name and means of communications contact if different than the predesignated telephone number,
 3. Date/Time of incident,
 4. Wind speed and direction, and

5. Status of engineered safeguards (working/not working)
County EOC or Warning Point will call LILCO to confirm information, above. LILCO will then provide as much of the following additional information as possible:
 1. Type of accident (transportation accident, reactor accident, fire involving radioactive material, liquid discharge, fuel handling accident, accidental criticality, other),
 2. Primary effect to offsite areas (release to the atmosphere, release to water, direct radiation),
 3. Estimate of the quantity and type of radioactive material released or that may be released,
 4. Estimates of offsite two-hour whole body (immersion) and thyroid (inhalation) dose,
 5. Perimeter survey results,
 6. Pasquill wind stability category,
 7. Status of safeguards (status of core coolant systems, containment integrity, etc.),
 8. Additional offsite agencies notified and nature of request and response, and
 9. Other pertinent information.
- G. The County and LILCO agree to coordinate their efforts in the release of information to the public to provide the public with accurate and timely information.
- H. LILCO agrees to conduct at least one drill annually to test communication channels in which the County will be invited to participate.
- I. This agreement may be terminated by either party upon 10 days written notice to the other party.

FOR SUFFOLK COUNTY

Signature

[Handwritten Signature]

Date

12-28-79

Title

FOR LONG ISLAND LIGHTING COMPANY

Signature

[Handwritten Signature]

Date

December 26, 1979

Title

Vice President

THIS AGREEMENT, as entered into as of this 18th day of September, 1981 by and between the Long Island Lighting Company (hereinafter referred to as "LILCO") and the County of Suffolk, acting through its Department of Planning (hereinafter referred to as the "DEPARTMENT").

WITNESSETH THAT:

WHEREAS, LILCO desires to enter into a contract with the DEPARTMENT to render certain technical and professional services hereinafter described,

NOW, THEREFORE, the parties hereto do mutually agree as follows:

1. Employment of Contractor. LILCO hereby agrees to engage the DEPARTMENT and the DEPARTMENT hereby agrees to perform the services hereinafter set forth. The relationship of the parties hereto shall be that of client and independent contractor; neither the DEPARTMENT nor any person hired by the DEPARTMENT shall be considered employees of LILCO for any purpose.

2. Scope of Services. The DEPARTMENT shall prepare a County Radiological Emergency Response Plan, as required by Federal Regulations in effect on the date of this Agreement for the LILCO Shoreham Nuclear Power Station. Said Plan shall be prepared in accordance with the description contained in clause 3 "Work Statement". The DEPARTMENT represents that it has read and is familiar with the applicable Federal Regulations set forth in Exhibit B attached hereto and that the DEPARTMENT believes it can develop a County Radiological Emergency Response Plan which complies with such regulations. If revisions to the aforesaid Federal Regulations shall be made during the period of this Agreement, calling for changes in the scope of work, then the provisions of clause 10 "Changes in Scope" of this Agreement shall apply.

3. Work Statement.

a. The DEPARTMENT shall perform the activities described in the SCOPE OF WORK appended hereto as Exhibit A.

b. The DEPARTMENT shall conform to the Federal Regulations and guidelines listed in Exhibit B, appended hereto, in the formation of outputs of activities described in Exhibit A.

c. Wherever specialized technical and scientific inputs are necessary, the DEPARTMENT will retain, after consultation with LILCO, the services of appropriate experts, at the DEPARTMENT's expense.

4. Time of Performance.

a. The DEPARTMENT will make every effort to complete the tasks listed in Exhibit A within 6 months from the date of execution of this Agreement, subject to the timely response by Federal and State agencies to requests for information, and the timely receipt of Federal and State concurrences with the draft and final Emergency Radiological Response Plans. In the event the DEPARTMENT fails to receive timely response from Federal and State agencies to requests for information, the DEPARTMENT shall promptly notify LILCO in writing of such failure.

b. The DEPARTMENT will issue monthly progress reports, and distribute them to LILCO, the Nuclear Regulatory Commission, the Federal Emergency-Management Agency, the New York State Department of Health, the Suffolk County Legislature, and other involved and interested agencies as specified by LILCO and agreed to by the DEPARTMENT. The DEPARTMENT agrees to provide LILCO with reasonable access to all memoranda, correspondence, professional qualification records of employees performing under the contract, papers, reports, studies and similar documents prepared by or obtained by the DEPARTMENT in connection with the performance of its obligations under this contract. LILCO shall give the DEPARTMENT 7 days' notice of its intention to exercise its rights under this paragraph.

5. Supervision and Personnel.

a. All work performed by the DEPARTMENT shall be under the direct supervision of Lee E. Koppelman.

b. The DEPARTMENT represents that it has, or will secure at its own expense, all personnel required to perform the services covered by this Agreement. Such personnel shall not be employees of, or have any contractual relationship with, LILCO.

6. Compensation. LILCO agrees to reimburse the DEPARTMENT on a fixed price basis; total compensation shall be TWO HUNDRED AND FORTY-FIVE THOUSAND (\$245,000.00) DOLLARS for the services described in clause 3 "Work Statement" of this Agreement unless this Agreement is amended as provided herein. The DEPARTMENT shall be compensated according to the following payment schedule:

\$150,000.00 on execution of this Agreement;

Balance on Completion.

7. Nondiscrimination. The DEPARTMENT shall not discriminate, directly or indirectly, on the grounds of race, color, religion, sex, age, national origin, or physical handicap in its employment practices related to this Agreement. The DEPARTMENT shall take affirmative steps to ensure that applicants are employed and employees are treated during employment without regard to race, color, religion, sex, age, or national origin.

8. Interest of Contractor. The DEPARTMENT represents that it presently has no interest and will not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of services required to be performed under this Agreement. The DEPARTMENT further represents that, in the performance of this Agreement, no person having any such interest shall be employed.

9. Title of Property. Title to property acquired under this Agreement vests with the DEPARTMENT.

10. Changes in Scope. If during the period of this Agreement, any change in the relevant Federal regulations causes an increase or decrease in the DEPARTMENT's cost of, or the time required for, the performance of any part of the work under this Agreement, an equitable adjustment shall be made and this Agreement modified in writing accordingly. No charge shall be made to LILCO for any change or increase in the obligations of the DEPARTMENT requiring extra work under this Agreement, unless the parties execute such an Agreement specifying the work to be done thereunder and the cost thereof. Disputes over such an adjustment shall be resolved as provided in clause 11 "Remedies" of this Agreement.

11. Remedies. This Agreement shall be interpreted according to to the laws of the State of New York. All claims, counter-claims, disputes and other matters in question between LILCO and the DEPARTMENT arising out of or relating to this Agreement or the breach thereof shall be decided by arbitration in accordance with the rules for commercial disputes of the American Arbitration Association in the City of New York. The parties hereto agree that the determination of said arbitration shall be final and binding upon the parties hereto and that a judgment on said award may be entered as a judgment of record in the Supreme Court of the State of New York. The fees and expenses of the arbiters shall be borne equally by the parties. Claims and disputes shall be defined as any formal written complaint which remains unresolved between the parties after reasonable efforts to resolve such matters have failed.

IN WITNESS WHEREOF, LILCO and the COUNTY have executed this Agreement as of the date first above written.

APPROVED
E. M. BARRETT
GEN'L COUNSEL
By: [Signature] Date: 7/2/71

LONG ISLAND LIGHTING COMPANY

By: [Signature]
Matthew C. Cordaro, Vice-President

SUFFOLK COUNTY DEPARTMENT OF PLANNING

By: [Signature]
Lee E. Koppelman, Director

COUNTY OF SUFFOLK

APPROVED AS TO FORM,
NOT REVIEWED AS TO EXECUTION By:

[Signature]
John C. Gallagher
Chief Deputy County Executive

[Signature]
Alfred Jackson, Jr. 8/2/71
Deputy County Attorney

STATE OF NEW YORK)

COUNTY OF NASSAU)

On this 18th day of September, 1981, before me personally came MATTHEW C. CORDARO, to me known, and known to me to be the person described in and who executed the foregoing instrument as Vice-President of the LONG ISLAND LIGHTING COMPANY, and he duly acknowledged to me that he executed the same.

Graceann Powers
Notary Public

STATE OF NEW YORK)

COUNTY OF SUFFOLK)

On this 28 day of August 1981, before me personally came LEE E. KOPPELMAN, to me known, who being by me duly sworn did depose and say: That he resides at Suffolk County, New York; that he is the Director of the SUFFOLK COUNTY DEPARTMENT OF PLANNING, described herein, and which executed the above instrument, and that it was executed by order of them, and that he signed his name thereto by like order.

Luis G. Gualta
Notary Public

LUIS G. GUALTA
NOTARY PUBLIC, STATE OF NEW YORK
No. 24-05724-3
Suffolk County
COMM. EXPIRES 12/31/83

STATE OF NEW YORK)

COUNTY OF SUFFOLK)

On this 29 day of August 1981, before me personally came JOHN C. GALLAGHER, to me known, who being by me duly sworn did depose and say: That he resides at Suffolk County, New York; that he is the Chief Deputy County Executive of Suffolk County, and that he executed the within instrument, and that he signed his name thereto by order of the County Executive of Suffolk County.

Luis G. Gualta
Notary Public

LUIS G. GUALTA
NOTARY PUBLIC, STATE OF NEW YORK
No. 24-05724-3
Suffolk County
COMM. EXPIRES 12/31/83

EXHIBIT A

SCOPE OF WORK

The preparation of the County Radiological Emergency Response Plan consists of nine phases. In carrying out the nine phases, the Suffolk County Department of Planning (the DEPARTMENT) will provide overall management and technical direction, and will be responsible for preparing document draft input (or modifications to existing documents), typing, printing, and distribution. In the development and effectuation of the Emergency Radiological Response Plan, the DEPARTMENT may utilize and employ the responsible County agencies and Departments to the maximum degree possible. The work already performed by LILCO, Suffolk County emergency planning organizations, the State of New York, and other New York counties surrounding operating nuclear plants in New York State will be utilized to the fullest extent practicable.

Each phase and its associated tasks is discussed below:

Phase I - Assess Suffolk County Emergency Planning Needs

The purpose of this phase is to review and assess the present status of the County emergency preparedness program and to make recommendations for a detailed program concerning schedules for both the County Radiological Emergency Response Plan and its Implementing Procedures. Based upon the results of this analysis, Suffolk County would have clear understanding of how best to accomplish its emergency planning responsibilities and could add to or modify the further phases and tasks described below. The specific tasks to be performed follow.

Task No. 1

Review and evaluate existing Suffolk County plans and procedures and determine the level of effort needed to bring them into compliance with existing regulations. Develop a schedule and an action plan that would accomplish this.

Task No. 2

Review existing evacuation plans, evacuation time estimates and public notification/communication systems with those parties involved. Develop a detailed program for upgrading or developing these plans and systems in order to meet existing requirements.

Task No. 3

Evaluate Suffolk County's independent environmental radiological monitoring capabilities and determine steps necessary to bring this capability up to the level required by Suffolk County to meet applicable Federal and State requirements. This task shall be coordinated with other work in this area done by LILCO and New York State. Methods and equipment required to perform radiological assessments to a degree desired by County officials in order to meet applicable laws and regulations will be determined.

Task No. 4

Prepare a needs analysis report which would address each aspect of Tasks 1-3; develop a detailed recommended approach to meet these needs; and provide a refined schedule for both the plan and its respective implementing procedures.

Phase II - Development of Draft Suffolk County Radiological Emergency Response Plans

The purpose of this phase would be to develop a County RERP that incorporates all necessary information and which is suitable for review by all appropriate agencies. The specific tasks to be performed follow.

Task No. 1

Perform an in-depth review of participating County government organizations and their existing radiological emergency response plans.

Task No. 2

Identify County agencies involved in emergency planning, define the authorization and responsibilities of these agencies, and identify the cognizant individuals within each agency.

Establish technical and managerial liaison with the responsible individuals in the County preparedness agency, LILCO, New York State, the Nuclear Regulatory Commission, and the Federal Emergency Management Agency.

Task No. 3

The DEPARTMENT will conduct familiarization meetings with the cognizant individuals in the County emergency preparedness agencies. The DEPARTMENT will provide guidance and background concerning the role and contribution of each agency in the emergency planning process, and recommend measures which will result in the most efficient planning activity.

Task No. 4

Identify a list of available County resources so that the overall emergency plan will make maximum use of these resources. The DEPARTMENT will develop checklists and prepare discussion agenda to ensure that the initial survey information is obtained in an orderly fashion, is properly documented, and is complete. These discussions will help determine assignment of various responsibilities to applicable emergency preparedness agencies and will also provide an effective format for identifying special emergency planning situations and/or problems.

Task No. 5

Manage the RERP development effort. The DEPARTMENT will identify individual agency tasks, responsibilities and interfaces to ensure maximum coordination and to facilitate the preparation of the draft plan.

The execution of Task No. 5 will require the completion of the following Sub-tasks.

Subtask No. 5.1

Building on the work done in Phase 1, Task 3, those agencies or organizations having some radiological assessment role during the emergency will be identified and their responsibilities will be delineated. Discussions will be held with the Department of Energy Regional Coordinating Office to determine their assistance role. The specifications, procurement and installation of this equipment is not included as part of this program.

Subtask No. 5.2

Review the existing or proposed communications network between the responsible Federal agencies, State and local officials, LILCO and field survey teams to ensure that the system is effective and reliable.

Subtask No. 5.3

Review and outline existing development of an early warning system for the general public. Individuals responsible for maintaining and actuating this system will be identified and their specific roles will be determined. Twenty-four (24) hour per day operational capability of the system shall be a program requirement.

Subtask No. 5.4

Incorporate into the County RERP the emergency action levels developed for the Shoreham Nuclear Power Station in accordance with NUREG-0610.

Subtask No. 5.5

Incorporate the prepared evacuation plans and associated time estimates into the County Plan.

Task No. 6

This task will be performed in parallel with Task No. 5, and will comprise the following subtasks:

Subtask No. 6.1

The RERP will also include the use of protective measures other than general evacuation. The following protective action response options will be developed

- Initial Precautionary Operations (i.e., institution of road blocks, etc.)
- Selective Evacuation
- Selective Sheltering
- General Sheltering
- Radioprotective Drug Administration
- Isolation of Ingestion Pathways and Sources

Subtask No. 6.2

The emergency planning needs for special facilities and/or problems will be addressed in this subtask along with the development of preliminary approaches for dealing with them. Facilities having special emergency planning needs and/or problems include, but are not limited to, the following:

- Hospitals
- Nursing/Retirement Homes
- Jails
- Recreational Areas
- Airports

Task No. 7

Prepare and issue the draft RERP for Licensee, State and local agency review and comment. This RERP shall emphasize proper and effective coordination between the responsible emergency preparedness agencies. All authorities and responsibilities, as determined in Task No. 2, will be clearly delineated in the plans.

Phase III - Preparation of Final Emergency Response Plan

The objective of this phase would be to finalize the emergency plan for submission to the Nuclear Regulatory Commission and to the Federal Emergency Management Agency. The following tasks will be completed during this phase.

Task No. 1

Conduct meetings with the responsible County emergency planning officials, the Licensee, and New York State officials to discuss their comments on the draft plan and to secure action, where necessary, to resolve outstanding concerns.

Task No. 2

Gather inputs and other information from County and State planning representatives and the Licensee as necessary to resolve outstanding differences.

Task No. 3

Finalize the County and State emergency plans by incorporating the information developed in Task No. 2. The DEPARTMENT will print and distribute the finalized plans to all parties.

Task No. 4

Coincident with Task No. 1 above, the DEPARTMENT and the cognizant emergency planning agencies will finalize the development of plans for the previously identified special emergency planning situations and/or solutions to problems.

Task No. 5

Coordinate final plan sign-off meetings, print and distribute final plans to the Licensee, State and local agencies and other organizations as designated by the County.

Phase IV - Assist in Obtaining Federal Agency Staff Concurrence With Emergency Plans

The objective of this phase is to confer with the reviewing Federal agency staffs to discuss their comments and to develop a program for obtaining agency concurrence with the plans developed in Phases I through III.

Task No. 1

Participate in meetings with the NRC, FEMA, DOT and other responsible agency staffs to discuss the plans and, to the extent possible, resolve commission and agency concerns.

Task No. 2

Discuss agency comments with the County and State emergency planning representatives and the Licensee to develop a program to resolve outstanding differences.

Phase V - Preparation of RERP Implementing Procedures

The objective of this phase is to develop detailed implementing procedures for the County Radiological Emergency Response Plan.

Task No. 1

Develop a listing of all necessary implementing procedures for the County emergency response plan. Any available local specific operating procedures will be utilized to the maximum extent feasible.

Task No. 2

Hold discussions with the County emergency planning organizations to ensure that they are fully aware of the latest Federal requirements for preparing satisfactory implementing procedures. Develop detailed outlines for each implementing procedure in cooperation with County emergency planning coordinators.

Task No. 3

The DEPARTMENT will prepare drafts of the implementing procedures and distribute them to the respective agencies for review and approval.

Task No. 4

Coordinate comments from the agencies and prepare final drafts of the procedures.

Task No. 5

The DEPARTMENT will assist the County agencies in meetings held with the NRC, FEMA, New York State, or other reviewing agencies as necessary to obtain final approval of the procedures.

Phase VI - Notification System Integration

In cooperation with LILCO and work which LILCO contracted to an independent consultant experienced in site evaluation, system design and system specification, the DEPARTMENT shall determine the resources, both administrative and physical, that are required to comply with the NRC 15-minute EPI notification regulation and assist in review of the preparation of specification and procurement of the necessary hardware. Installation and test procedures would also be developed upon selection of a vendor. Actual installation would be accomplished by others.

Task No. 1

Review survey of the 10-mile EPI; including demographic, topographic and geographic considerations that determine the characteristics of the required warning/notification system. Also, review the evaluation of existing notification capabilities, such as town and village fire department sirens.

Task No. 2

The DEPARTMENT will work jointly with LILCO to:

- i. select the notification system(s) that will be utilized;
- ii. review list of commercially available equipment and vendor selection/qualification; and
- iii. develop system installation and test procedures.

Phase VII - Public Education Program

Task No. 1 - Define Program Scope

During this task, the detailed scope and content of the public education information program will be identified after consultation with and concurrence by LILCO. Work completed or in progress by LILCO shall also be reviewed and evaluated. Examples of items which will be addressed include:

- brief factual information on radiation
- sources for additional information during emergency (i.e., Emergency Broadcasting System)
- guidance on respiratory protection
- protective action response options such as sheltering and evacuation
- emergency response planning areas (map)
- evacuation routes (map)
- reception center assignment and location
- provisions for identifying transit captives and those individuals requiring special handling who live in private residences
- ingestion exposure safeguards
- what plans and preparations can be made now
- things to take during evacuation (checklist)
- notification or alerting system details (sirens, etc.)
- method for notifying authorities that residents have left their homes (verification/confirmation)

Task No. 2 - Method of Dissemination

During this task, the means of disseminating the information to the public will be developed and supported by detailed procedures formulated jointly by the DEPARTMENT and LILCO. These methods could include:

- regional information centers
- periodic information in utility bills
- public service announcements (radio and TV)
- ads in periodicals (local newspapers and magazines)
- posting in public areas
- pamphlets distributed on a periodic basis
- information in the telephone book
- distribution to school children/PTA meetings
- local government/community meetings
- telephone information service

Task No. 3 - Program Implementation

During this task, the program will be implemented via procedures incorporating details developed in Tasks No. 1 and 2.

Phase VIII - Testimonial Services

At the request of Suffolk County or appropriate Federal or State agencies having jurisdiction or supervision over Emergency Response Plans, the DEPARTMENT will provide expert witness testimony before local, State and/or Federal regulatory agency boards concerning all emergency planning work performed by the DEPARTMENT.

Phase IX - Radiological Emergency Response Training

In cooperation with LILCO and New York State, where practical, and in support of the overall Radiological Emergency Response Program, the DEPARTMENT will provide personnel training services for all program participants. Emphasis will be placed on the following disciplines:

- emergency plan and procedure familiarization
- use of radiological survey instruments
- radioactive waste disposal methods and techniques
- radiation protection measures
- decontamination procedures
- radiological exposure control record keeping
- dosimetry
- notification procedures
- evacuation methodology
- radiological accident prognosis
- protective action response option evaluation process

EXHIBIT B

Guideline Documents

All finalized plans and procedures will be developed to meet NRC, FEMA, EPA and any other applicable regulatory requirements in effect at the date of the execution of this Agreement. It is the intention of the DEPARTMENT therefore, to utilize the following criteria as the basic guideline documents for the development of the appropriate plans and implementing procedures.

a. NUREG-0396

"Planning Basis for the Development of State and Local Government Radiological Emergency Response Plans in Support of Light Water Nuclear Power Plants"
December, 1978

b. NUREG-0610

"Draft Emergency Action Level Guidelines for Nuclear Power Plants"
September, 1979

c. EPA-520/1-75-001

"Manual of Protective Action Guides and Protective Actions for Nuclear Incidents"
September, 1975

d. 10 CFR 50, Appendix E

"Emergency Plans for Production and Utilization Facilities"

e. NUREG-0654, FEMA-REP-1 Rev. 1

"Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants"
November, 1980.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

_____)	
In the Matter of)	
)	
LONG ISLAND LIGHTING COMPANY)	Docket No. 50-332 OL
)	
(Shoreham Nuclear Power Station)	
Unit 1))	
)	
_____)	

Discovery Deposition of ROBERT C. MEUNKLE, called as a witness pursuant to 10 CFR Section 2.740 and 2.740(a), taken before Carl W. Girard, C.M., a Notary Public at the offices of Hunton & Williams, 1919 Pennsylvania Avenue, N.W., Washington, D.C. on Friday, the 6th day of August, 1982, commencing at 2:00 p.m., pursuant to agreement of counsel.

APPEARANCES:

HUNTON & WILLIAMS, by
Joseph M. Spivey, III, Esq.
D. Alan Rudlin, Esq.
James N. Christman, Esq.
Kathy E. B. McCleskey, Esq.,

on behalf of LILCO:

KIRKPATRICK, LOCKHART, HILL, CHRISTOPHER & PHILLIPS
1900 M. Street, N.W.
Washington, D.C. 20036, by
Cherif Sedky, Esq., and
Christopher M. McMurray, Esq.,

on behalf of Suffolk County,
New York Intervenor.

ALSO PRESENT:

Mr. Charles A. Daverio
Mr. H. Mark Blauer

C. W. Girard, C.M.

Registered Professional Reporter

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In Matter of)
)
)

LONG ISLAND LIGHTING COMPANY)

(Shoreham Nuclear Power Station)
Unit 1))
)
)
_____)

Docket No. 50-332 OL

Continuation of discovery deposition of ROBERT C. MEUNKLE, called as a witness pursuant to 10CFR 2.740 and 2.740(a), taken before Carl W. Girard, C.M., a Notary Public at the offices of Light Island Lighting Company, Hicksville, New York, on Monday, the 16th day of August 1982, commencing at 9:40 a.m., pursuant to agreement of counsel.

APPEARANCES:

HUNTON & WILLIAMS, by
Joseph M. Spivey, III, Esq. and
D. Alan Rudlin, Esq.,

on behalf of LILCO;

KIRKPATRICK, LOCKHART, HILL, CHRISTOPHER & PHILLIPS
Christopher M. McMurray, Esq.,

on behalf of Suffolk County
New York, Intervenor.

ALSO PRESENT:

Mr. William Renz, LILCO

C. W. Girard, C.M.

Registered Professional Reporter

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1 Q I'm sorry, Mr. Meunkle, you told me but, when did
2 you start these general duties?

3 MR. SEDKY: He testified about three years ago.

4 A It was over three years ago.

5 BY MR. SPIVEY:

6 Q When did you last have any duties and responsi-
7 bilities with respect to the emergency plan?

8 A April 15th of this year.

9 Q Am I correct then, Mr. Meunkle, that as the
10 Assistant Director of Traffic Safety you did have some
11 responsibilities in respect to the emergency plan?

12 A Yes. That was my title with the Department of
13 Transportation before I--no, I shouldn't say that.

14 That was my title in the Department of Transporta-
15 tion when I was transferred to the Department of Planning
16 to work for Dr. Koppelman. I retained the title and I still
17 retain the title in the Department of Public Works.

18 Q Were you sort of attached TDY to Dr. Koppelman?

19 A At the time I went to Dr. Koppelman it was
20 permanent.

21 Q When your duties and responsibilities in respect
22 of the emergency plan ended on April 15 of this year, were
23 you given a new job title?

1 A No.

2 Q You just were relieved of those duties and
3 responsibilities?

4 A That's correct.

5 Q And is it fair to say that you went back to doing
6 what you had been doing before you had any responsibilities
7 with respect to the emergency plan?

8 MR. SEDKY: Excuse me, the emergency plan
9 you've been referring to is the Suffolk County plan?

10 MR. SPIVEY: Yes.

11 Q You understand what I mean by emergency plan,
12 don't you, Mr. Meunkle?

13 A Yes.

14 Q All right, sir.

15 A Ultimately, yes, I returned to doing the duties
16 that I was--let me retrace it.

17 Initially, it was just doing the evacuation
18 portion of the plan and just before we started I had certain
19 duties that I retained.

20 In addition to that, now I'm back to pre-evacuation
21 planning, the same duties I had at that time.

22 Q All right, sir.

23 (Recess taken at 2:47 p.m. and reconvened

1 at 3:00 p.m.)

2 MR. SPIVEY: Back on the record, please.

3 Q Mr. Meunkle, what is your understanding of why
4 you were relieved of your duties on April 15, 1982?

5 MR. SEDKY: I object to the question and
6 instruct the witness not to answer.

7 MR. SPIVEY: All right, sir. We'll take that
8 up with the judge, too.

9 MR. SEDKY: Sure.

10 BY MR. SPIVEY:

11 Q Mr. Meunkle, I'm getting a copy of a document made,
12 but I'm sure you are familiar with it, which is the contract
13 between LILCO and the County dated September 18, 1981. I
14 will hand it to you just as soon as we get a copy of it and
15 ask you if you are familiar with it?

16 A Yes.

17 Q Will you tell me, please, what role you played
18 in the formation of that contract?

19 MR. SEDKY: Before I object, Mr. Spivey,
20 could you just proffer for me what the issue as
21 to which that question is related to is?

22 MR. SPIVEY: No, sir.

23 MR. SEDKY: Well, in that case I instruct the

1 deposition in accordance with Mr. Brown's request.

2 MR. SPIVEY: We'll just have to take that up,
3 Mr. Sedky, when you file your brief, or whatever you
4 choose to file.

5 MR. SEDKY: Very well.

6 BY MR. SPIVEY:

7 Q Are you going to follow his instructions,
8 Mr. Meunkle?

9 A Yes.

10 Q You know you're coming back again?

11 A You're pleasant folks.

12 Q All right, sir. What are the consultants you worked
13 with on the siren coverage?

14 A I wouldn't characterize it as working with them;
15 they were retained by the utility but it was Wiley Associates
16 who was working on the siren system for the utility.

17 Q Who did you work with with LILCO on the siren
18 system?

19 A Mr. Daverio.

20 Q Did Ms. Palmer have any involvement in that work?

21 A Yes.

22 Q Who did you work with at LILCO on the tone alert?

23 A Mr. Daverio.

1 Q Did you ever make any inquiry to determine if it
2 would work under all types of weather?

3 A Not that I can recall.

4 Q Do you ever recall having any discussions with
5 any of the County officials with respect to the efficacy of
6 the system to operate under inclement weather conditions?

7 A No.

8 Q Did you ever have any discussions that you can
9 recall with any representatives of LILCO along the same line?

10 A No.

11 Q In your consideration of the prompt notification
12 system, did you ever have any occasion to consider backup
13 power sources for this system?

14 A Backup power was discussed. I don't know if there
15 was any ultimate resolution on the issue.

16 Q Who did you discuss it with?

17 A Specifically I can recall Mr. Daverio, Mr. Wrens,
18 and other technical people from the utility at a meeting where
19 prompt notification was discussed.

20 Q Tell me everything you can recall about those
21 discussions that you had with Mr. Daverio and Mr. Wrens.

22 A The thrust of the meeting was more oriented to
23 the tone alerts and to the siren system with respect to their

1 activation. As I recall, the bulk of the meeting was
2 concentrated on that area, the tone coded signals. We had
3 brought a communications expert from the police department
4 with us who was familiar with that aspect of the overall
5 public--prompt notification system concepts.

6 Also at the meeting we were briefed on the Wiley
7 proposal, what they intended to do and how they intended to
8 accomplish it.

9 Q As a consequence of those meetings, did you ever
10 conclude that the system you had proposed was inadequate?

11 MR. SEDKY: I'm sorry, that who had proposed?

12 MR. SPIVEY: That he had proposed.

13 MR. SEDKY: The tone alerts?

14 MR. SPIVEY: The prompt notification system.

15 A I don't know that we proposed it per se. As I
16 said, federal guidelines indicate that the prompt notification
17 system is utility responsibility.

18 Q Well, with respect to those discussions, irrespec-
19 tive of who proposed them, did you ever conclude that the
20 system that was being considered was inadequate?

21 A No.

22 Q Mr. Meunkle, in considering the siren coverage,
23 tell me what you did to assure yourself that everyone within

1 were close by?

2 A Absolutely.

3 Q Did you consult with anyone else other than the
4 people at Brookhaven with respect to recommendations for
5 protective action?

6 A The utility.

7 Q Who did you contact at the utility?

8 A Mr. Daverio.

9 Q During what period of time were you having this
10 contact with Mr. Daverio?

11 A I would say from the middle of 1981 until April
12 1982. That contact is with respect to protective action.

13 Q Protective action, yes. I understand that, but
14 I understand that you've had a continuing course of contact
15 with Mr. Daverio over the time that you were responsible for
16 the formulation of this emergency plan?

17 A That's correct.

18 Q This is a general question. I'm not just talking
19 about protective action now. During the time you had contact
20 with Mr. Daverio, would there ever be an occasion for the
21 County, or through you, to make any demands on Mr. Daverio
22 for any type of services, logistical support, information,
23 anything of that sort?

1 A Yes, sir.

2 Q Could you tell me generally the demands that you
3 made on Mr. Daverio?

4 A I wouldn't categorize it as demands.

5 Q How about requests? Do you like that better?

6 A Let's say we had what I consider to be a
7 professional working relationship with the people at the
8 utility. We had a common goal of an emergency plan, and we
9 did whatever was necessary to reach that goal.

10 Yes, we made requests of the utility for services.

11 Q All right, sir. Insofar as you were concerned
12 then, did the utility respond in a professional manner?

13 MR. SEDKY: Are we still involved in protective
14 action or did we move to some other topic?

15 MR. SPIVEY: No, we are on general issues right
16 now.

17 MR. SEDKY: Go ahead.

18 A The question was -- please repeat it?

19 BY MR. SPIVEY:

20 Q Did Mr. Daverio, insofar as you were concerned,
21 respond in a professional manner?

22 A Absolutely.

23 Q Mr. Meunkle, with respect to this one meeting

ROBERT NEUNALE
RR2, 12 Long Bow
Wading River, N.Y. 11792
(516) 929-3098

AUG 6 1982

Neunale Ex. 1 Id ✓ EV

CARL W. GIRARD

EXPERIENCE HIGHLIGHTS

1975 to Present

Suffolk County Department of Transportation
Traffic Safety Division

Traffic Engineer III

Responsibilities cover staff administration and coordination of the Department's Traffic Safety Division Operations and Surveillance Unit which conducts traffic engineering and improvement studies, research and special study projects.

Researched and wrote several reports on Hazardous Material Transportation to the Legislative Subcommittee; resulting in agreements and local legislation instrumental in improving the safety with which these materials transported within Suffolk County.

Researched, developed and wrote the Transportation Element of the evacuation plan for the Shoreham Nuclear Power Station currently under construction. Conceptually, this plan is consistent with recommendations expressed in the Emergency Commission Report.

Testified on behalf of Suffolk County Before the New York State Siting Board for Electrical Generation, and the Nuclear Regulatory Commission.

Acted as project director for the Departmental Traffic Engineering Training Program; acted as Division supervisor in the absence of the Director; coordinate activities with governmental and civic leaders.

1971 to 1975

Suffolk County Department of Traffic Safety
Accident Location Program

Traffic Engineer III

Primarily responsible for the coordination and supervision of the Engineering Unit whose function was the identification and surveillance of high accident locations.

These investigations produced a series of technical reports and recommendations to reduce accidents. The subsequent implementation of those recommendations resulted in a 25% reduction in accidents and a benefit cost 6:1, or six dollars saved for every dollar spent.

1969 to 1971

New York State Department of Transportation
Regional Traffic Engineering and Safety Unit

Assistant Civil Engineer

Acted as technical advisor to State construction engineers, responsible

contracts regarding traffic control devices and installation. These contracts represented 6.5 million dollars in capital construction funding. Instrumental in developing a traffic actuated master computer capable of dividing six cycles, five offsets, and two splits for slave intersections on a major arterial highway.

Worked in cooperation with private citizens, church and community organizations, and public officials in regard to traffic problems.

1965 to 1969

New York State Department of Transportation
Regional Traffic Engineering and Safety Unit

Principal Engineering Technician

Initially a Senior Engineering Technician, was promoted with enlarged responsibilities in the design of traffic signals and systems.

Wrote signal specifications and directed the preparation of final contracts. Substantiated plans and specifications prepared by consultant engineers retained by the State.

1962 to 1965

New York State Department of Public Works
Traffic Transportation Studies Group

Engineering Technician

Acted as chief of survey crew conducting topographical surveys of various areas in New York City to facilitate the preparation of contract plans.

Assisted in the preparation of the final contract by writing specifications, computing cost and quantity estimates.

Participated in traffic surveys, origin and destination studies, physical inventories, and travel time studies.

EDUCATIONAL HIGHLIGHTS

BROOKLYN TECHNICAL INSTITUTE OF BROOKLYN - Division of Transportation Planning, New York (1970). Completed program of Case Studies in Traffic Control: Systems Analysis Approach; a comprehensive course dealing with traffic control problems.

BROOKLYN TECHNICAL INSTITUTE OF BROOKLYN - Division of Transportation Planning, New York (1969). Completed an accelerated program in traffic engineering, transportation planning, and analytical techniques in traffic and transportation given in Albany under the auspices of the New York State Science Technology Foundation.

NEW YORK CITY COMMUNITY COLLEGE, New York (1963 - 1966). Completed 24 credits, at night, in

ARTS INSTITUTE, New York (1957 - 1960). Completed 77 credits in Architecture and Engineering Before entering military service.

BROOKLYN TECHNICAL HIGH SCHOOL, New York. Graduated 1957.

PERSONAL INFORMATION

ran, United States Army, 101st Airborne Division, honorable discharge.
ed from March 1960 to June 1962.

rman, Islip Town Traffic Safety Board for two years.

ted to address the Governor's Traffic Safety Committee in North
lina. That presentation was later published.

e an article published in the International Municipal Signal Association
zine which was awarded " Best Traffic Article " honors by the Associatio
ciate Member, Institute of Transportation Engineers.

40; Married, 3 children; 6'8"; 205 lbs.; Excellent Health.

SUFFOLK COUNTY DEPARTMENT OF PLANNING
EVACUATION PLANNING GROUP
H. Lee Dennison Building
Veterans Memorial Highway
Hauppauge, N.Y. 11788

438

MEMORANDUM
May 12, 1982

TO: Frank Jones
Deputy County Executive

FROM: Robert Meunkle
Planning Department

RE: Suffolk County Radiological Emergency Response Plan (SCRERP)

The purpose of this memo is to clarify some aspects of what has been done with respect to the SCRERP. Initially, let me indicate that everything you have to date was written and prepared by the County.

I must also state that, until the very recent intervention by the County at the Nuclear Regulatory Commission hearings, we were working in a cooperative vein with LILCO, therefore, their preparation and printing of the exhibits that were designed by the County were to save the County time and money. Subsequent to the law suit, I received instructions from Dr. Koppelman to end our formal relationship with LILCO and to get from the utility whatever was then in the pipeline. This has been done.

There also appears to be some confusion as to consultants, again I must stress, that the discussions relative to consultants was prior to the County's legal actions.

There were two distinct areas where we have asked the utility for assistance. One was when we suggested they retain KLD Associates to do the dynamic analysis of the evacuation routing assignments. We requested this because the County did not have the in-house computer or traffic model capability needed, and predicated on inquiries we had made, it was apparent that KLD had the state-of-the-art model which was proprietary. In addition, we wanted someone (as did the utility) to independently verify our time estimates for the various evacuation scenarios as postulated in NUREG 0654, Appendix IV. The initial meeting with KLD occurred on December 30, 1981.

Meunkle 15 11 V - EV
11/11/81

4020438

May 12, 1982

The second major area we asked the utility for assistance with were items within the Health Services portion of the SCRERP. The firm of Stone and Webster, already acting as consultants to LILCO on their emergency plan, were asked by the utility to work with us on the County Health Services portion of the local plan. This occurred in early March. Subsequent to your directive to me on April 15, 1982, and further reinforced by a discussion with Dr. Koppelman and myself, I contacted LILCO to request that any materials belonging to us be returned and to indicate we would not be making further requests.

During the long process that this planning effort has been following, many meetings were held with representatives of the Department of Health Services, some of which were attended by the utility. Predicated on those meetings, the utility asked Stone and Webster to write the Health Services portion of the County plan at our direction.

At the initial meeting with the principals, I presented an outline of what I wanted in this portion of the plan. There were two subsequent meetings, prior to being directed by yourself to terminate any working relationships with the utility. At each of these meetings we commented on the draft document and requested changes and modifications. At the termination of the working relationship with the utility we did not have the current Health Services section of the plan. I specifically explained this to Chris MacMurray, stating that we were working on health with the utility and the utility was currently in possession of the Health Services portion of the plan. Mr. MacMurray indicated that if we did not receive the document to inform him and he would see that it was provided through the attorneys.

It was over three years ago that we initiated work on the Evacuation Plan (Appendix A) for the ten mile EPZ. At that time, it was our stated objective to prepare the best possible document to protect the health and safety of the people of Suffolk County.

When the County entered into an agreement with the utility to prepare the SCRERP, our role greatly expanded but the stated objective has always remained the same.

I believe we were successful in realizing our stated objective, which is probably unfortunate in view of the current County position with respect to emergency planning. I state this, having read many other plans, all of which have been prepared by consultants. Invariably, consultants cannot devote the time necessary to guarantee that their methodology is functional. In essence a consultant ultimately gets to move on to their next project, while a local agency which develops a plan, must make sure that their plan is, in fact, operable.

4020438

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
))
LONG ISLAND LIGHTING COMPANY)
))
(Shoreham Nuclear Power Station)
Unit 1)) Docket No. 50-332 OL
))
))

Discovery Deposition of LAURA LYNN PALMER, called as a witness pursuant to 10CFR 2.740 and 2.740(a), taken before Carl W. Girard, C.M., a Notary Public at the offices of Long Island Lighting Company, Hicksville, New York, on Monday, the 16th day of August 1982 commencing at 11:35 a.m., pursuant to agreement of counsel.

APPEARANCES:

HUNTON & WILLIAMS, by
Joseph M. Spivey, III, Esq., and
D. Alan Rudlin, Esq.

on behalf of LILCO:

KIRKPATRICK, LOCKHART, HILL, CHRISTOPHER & PHILLIPS, by
Christopher M. McMurray, Esq.,

on behalf of Suffolk County
New York, Intervenor.

ALSO PRESENT:

Mr. William Renz, LILCO.

C. W. Girard, C.M.

I N D E X

2	<u>NO.</u>	<u>DESCRIPTION</u>	<u>PAGE</u>
3	1	Contract between Long Island Lighting Company and County of Suffolk dated September 18, 1981	19
4			
5	2	Document entitled Meeting and Conference Logs	45
6			
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1 BY MR. RUDLIN:

2 Q This is the shortest way to go at it. Will
3 you tell me what the modifications are?

4 MR. McMURRAY: Objection.

5 A Basically, this document refers to reviewing
6 evacuation plans that were already prepared, and that
7 wording is because, again, it was a paraphrase of the
8 EDS contract. They were going to look at the overall
9 emergency response plan and LILCO was going to use our
10 evacuation portion as a supplement to their overall
11 response plan since they respected the work we had done
12 to date.

13 In that vein, where it says review, prepare
14 documents, we were actually in the process of also
15 preparing those documents jointly within the same time
16 frame.

17 Certain scopes related to public education
18 and training, those were areas that we never got a chance
19 to get into as far as actively participating, although
20 we did have some writeup within the context of the report
21 as far as the need for those services.

22 BY MR. RUDLIN:

23 Q As I understand it, the reason that the

1 Planning Department, you and Mr. Meunkle, were given the
2 responsibility to develop the Suffolk County emergency
3 plan instead of outside consultants was to take advantage
4 of the recognized experience and familiarity that you all
5 had with Suffolk County?

6 A That is correct.

7 Q In doing all the work that you did do on
8 the emergency plan that resulted in the final product in
9 April of 1982, did you take into account as part of your
10 work various local conditions that are unique to Suffolk
11 County, such as its population and demography and its
12 topography and its climate?

13 A Yes.

14 Q And its geography, all those local
15 conditions?

16 A Yes.

17 Q I take it you were able to do so in part
18 based on your own longstanding familiarity and experience
19 with the area?

20 A Yes, I was.

21 Q You mentioned earlier in your deposition
22 today one of the things that was taken into account in
23 developing the Suffolk County emergency plan were some of

1 A No. Again, there may have been stipulations,
2 such as training or protective equipment.

3 Q Where you all recognized there might be
4 some potential for people who have some kind of a conflict,
5 you intended to provide for public education and training
6 to remedy that problem?

7 A That's correct.

8 Q Without going into additional massive
9 amountsof documents before me that chronical the work
10 that you and Mr. Meunkle engaged in as part of the
11 emergency plan, is it fair to say that the extent of your
12 work was very substantial to prepare the Suffolk County
13 emergency plan?

14 A Yes, it was.

15 (Pause)

16 BY MR. RUDLIN:

17 Q There came a time when you stopped working
18 on the Suffolk County emergency plan; is that right?

19 A That's correct.

20 Q That was sometime in March of 1982?

21 A I would say closer to April.

22 Q I take it that up until that time it was
23 anticipated that the emergency plan that you were producing

1 would result in a final executed emergency plan by Suffolk
2 County?

3 MR. McMURRAY: Objection, relevance.

4 A Yes. We were working on a final draft.
5 The actual final plan would be subject to federal and
6 state reviewing and comments.

7 BY MR. RUDLIN:

8 Q From the perspective of Suffolk County, and
9 that of you and Mr. Meunkle who were doing the work on the
10 emergency plan, when did you anticipate that the plan
11 would have been final in order to submit to the NRC and
12 New York State?

13 MR. McMURRAY: Objection, relevance.

14 A The original contract obligation was for
15 six months, which meant approximately March 18th; however,
16 we had verbally asked for an extension and we figured
17 sometime either the end of March of '82 or in April of '82.

18 BY MR. RUDLIN:

19 Q But for the change in circumstances, do
20 you think that a final plan would have been reached by
21 May of 1982?

22 MR. McMURRAY: Same objection.

23 A Definitely.

1 BY MR. RUDLIN:

2 Q Let me hand you a handwritten document.
3 It appears to be captioned meeting and conference logs,
4 and ask if you recognize that.

5 (Document proffered)

6 A (Witness perusing document)

7 Yes, I do.

8 Q What is it?

9 A Basically, this is a piece of my own
10 recordkeeping which cataloged the dates of particular
11 meetings related to emergency planning, since I believe
12 it was 1980 to present.

13 MR. RUDLIN: Let me have that marked as
14 Palmer Exhibit 2, please.

15 (Whereupon, the aforementioned document
16 was marked as Palmer Deposition Exhibit No. 2.
17 for identification.)

18 BY MR. RUDLIN:

19 Q Palmer Exhibit 2 essentially was a work
20 diary that you kept while you were working on emergency
21 planning?

22 A That's correct.

23 Q Exhibit 2 ends with May 18, I assume, 1982.

1 entry. Why did it stop then?

2 MR. McMURRAY: Objection, relevance.

3 A May I see the document?

4 Q Sure.

5 (Document proffered)

6 A (Witness perusing document)

7 Basically, that was the last contact we
8 had with anyone in regard to the emergency planning
9 project. We were no longer actively working on it.

10 Q As of April of 1982, you and Mr. Meunkle
11 had done an immense amount of work to prepare an emergency
12 plan for Suffolk County; is that right?

13 A That's correct.

14 Q You and Mr. Meunkle produced an emergency
15 plan that appears to me, and I take it to others as well,
16 to have been an excellent plan, and I take it you would
17 agree that it was an excellent plan?

18 A Yes, I would.

19 Q My question, to clarify something I have
20 never understood, is what happened to the Suffolk County
21 emergency plan and why did it happen?

22 MR. McMURRAY: Objection. That does not
23 deal at all with Phase 1 issues, and I'll

1 instruct the witness not to answer that question.

2 BY MR. RUDLIN:

3 Q Miss Palmer, are you going to follow the
4 instruction of Mr. McMurray?

5 A Yes, I am.

6 Q Do you deem Mr. McMurray to be your lawyer?

7 A Yes, I do.

8 Q When in your mind did Mr. McMurray become
9 your lawyer?

10 MR. McMURRAY: Mr. Rudlin, as you well
11 know, we represent Suffolk County, and in that
12 respect we also represent Suffolk County's
13 employees.

14 A In terms of this deposition, I would say
15 he became my counsel as of August 6th.

16 BY MR. RUDLIN:

17 Q Of this year?

18 A Yes.

19 Q Did you consider Mr. McMurray to be your
20 lawyer prior to August 6th?

21 MR. McMURRAY: Objection.

22 A No.

23

1 BY MR. RUDLIN:

2 Q Are you paying Mr. McMurray to act as your
3 lawyer?

4 MR. McMURRAY: Mr. Rudlin, I find this
5 fishing expedition through the attorney-client
6 relationship highly inappropriate.

7 MR. RUDLIN: Mr. McMurray, I'm trying to
8 establish if there is such a relationship.

9 MR. McMURRAY: Miss Palmer has already
10 stated there is such a relationship.

11 BY MR. RUDLIN:

12 Q Can you read back my last question?

13 (Question read by the Reporter)

14 A No, I am not.

15 Q On August 6, did you ask Mr. McMurray to
16 serve as your counsel?

17 MR. McMURRAY: Objection. Mr. Rudlin,
18 this is entirely inappropriate.

19 A No, I did not specifically ask.

20 BY MR. RUDLIN:

21 Q What is your understanding of how he came
22 to be your attorney on August 6th?

23 MR. McMURRAY: Let me advise Miss Palmer

1 she is not required to answer these questions
2 that seek information on the attorney-client
3 relationship. I will advise her she does not
4 have to answer these questions. I will instruct
5 her not to answer these questions.

6 BY MR. RUDLIN:

7 Q What did you do when you stopped working
8 on emergency planning, Suffolk County?

9 A Basically, it was to re-read some of the
10 work that we had previously done and make corrections,
11 such as typographical errors, et cetera, that we never
12 had time to really look at before; make sure all our
13 files and correspondence were organized in case such
14 material was required by our lawyers. In general, it was
15 just to clean up the project in the best way possible,
16 tie up loose ends.

17 Q Then what did you do?

18 A Subsequently, I was transferred to the
19 Department of Public Works out in Yaphank.

20 Q Was that transfer at your request?

21 A No, it was not.

22 Q Who had requested it?

23 MR. McMURRAY: Objection.

1 A The transfer was done through resolution
2 through the Suffolk County Legislature.

3 BY MR. RUDLIN:

4 Q I'm not familiar with how local government
5 works, but is it standard for the local Legislature to
6 become involved in personnel transfers?

7 MR. McMURRAY: Objection, relevance.

8 A Our transfer is deemed a budget transfer,
9 where not only the title but the particular salary of that
10 title is transferred from one department to another, and
11 since the Legislature has control over all budget matters,
12 the Legislature has to approve the change in financing.

13 BY MR. RUDLIN:

14 Q My earlier question was at whose instance
15 was the transfer initiated?

16 MR. McMURRAY: Objection, relevance, and

17 I will instruct the witness not to answer the
18 question.

19 BY MR. RUDLIN:

20 Q Where did you get transferred to?

21 A I was transferred to the Department of
22 Public Works.

23 Q What have you been doing at the Department



LONG ISLAND LIGHTING COMPANY

175 EAST OLD COUNTRY ROAD · HICKSVILLE, NEW YORK 11801

MATTHEW C. CORDARO, Ph.D.
VICE PRESIDENT

March 17, 1982

Dr. Lee E. Koppelman
 Director of Planning
 County of Suffolk
 H. Lee Dennison Bldg.
 Veterans Memorial Highway
 Hauppauge, NY 11787

Re: Contract Between Suffolk County and
 LILCO Regarding Emergency Planning

Dear Dr. Koppelman:

Your letter of February 19, 1982, indicates that Suffolk County intends to return \$150,000 that LILCO has paid to the County pursuant to a contract under which the County is to receive financial assistance from LILCO to help defray the County's expense in preparing its Radiological Emergency Response Plan for the Shoreham Nuclear Power Station. Pursuant to the contract, the County is to complete its plan by March 18, 1982.

Your letter of February 19th also states that LILCO should not make the final payment that will become due upon completion of the County plan.

LILCO, however, has requested neither the return of the \$150,000 paid to date nor the discharge of its obligation to make final payment. The Company is at a loss to understand why the County believes that acceptance of these payments constitutes a conflict of interest.

LILCO is relying on the County to perform its obligations under this contract and will be damaged severely if the County fails to perform these obligations fully. LILCO will not accept the return of any money paid under this contract unless the County first assures the Company in writing (1) that acceptance of this money by LILCO will not be construed to release or discharge the County from its obligations under the contract, (2) that the County intends to perform its obligations under the contract, and (3) that the return of this money will not impair the County's ability to perform its contractual obligations fully. The Company intends to make final payment in accordance with the terms of the contract.

Dr. Lee E. Koppelman
Director of Planning
County of Suffolk
March 17, 1982
Page 2

If you would like to discuss this matter further, please do not hesitate to contact me.

Very truly yours,

Matthew C. Cardan

cc: Hon. Peter F. Cohalan
David J. Gilmartin, Esq.
W. T. Reveley, III, Esq. ✓
I. L. Freilicher, Esq.

COUNTY OF SUFFOLK



ATTACHMENT 7

OFFICE OF THE COUNTY EXECUTIVE

PETER F. CONALAN
SUFFOLK COUNTY EXECUTIVE

JOHN C. GALLAGHER
SUFFOLK COUNTY EXECUTIVE

May 17, 1982

Mr. Matthew C. Cordaro, Ph.D.
Vice President
Long Island Lighting Company
175 East Old Country Road
Hicksville, New York 11801

Dear Mr. Cordaro:

This is in reply to your letter of March 17, 1982, concerning the September 18, 1981 agreements between Suffolk County and LILCO regarding emergency planning.

1. Given that the County is in an adversarial relationship to LILCO in the pending licensing hearings before the Nuclear Regulatory Commission, the County believes there would be the appearance of a conflict-of-interest by receiving any funds from LILCO.
2. The County is preparing a radiological emergency response plan which will satisfy all local, state and federal criteria and regulations, as contemplated by the September 18, 1981 agreement between the County and LILCO. Pursuant to Legislative Resolution 262 and Executive Order, such plan will be transmitted to the County Legislature by October 1, 1982.
3. The County's emergency planning effort is being performed by a team of nationally recognized experts. A list of these experts is enclosed herewith for your information. The County Executive has informed these experts that Suffolk County wishes to develop the best possible emergency plan to protect the health and safety of the residents of Suffolk County. Needless to say, a meaningful, workable radiological emergency plan would also be in LILCO's best interests.

May 17, 1982

4. Should LILCO be dissatisfied with the foregoing, please refer to Clause II of the September 18, 1982 agreement. Therein, it is stated that all matters in question relating to the agreement be decided by a stipulated arbitration procedure.

It is the County's hope that LILCO will promptly terminate its resistance to the County's good faith emergency planning efforts. An increasing amount of the County's time is being consumed by the need to respond to seemingly belligerent actions of LILCO that challenge the County's current effort. I ask that you convey to your colleagues these serious sentiments, and that LILCO refrain from escalating further with rhetoric or deed any difference which exists between LILCO and the County with respect to the critical goal of effective radiological emergency preparedness.

Sincerely yours,



John C. Gallagher
Chief Deputy County Executive

JCG/tr

SUFFOLK COUNTY
RADIOLOGICAL EMERGENCY RESPONSE
PLANNING CONSULTANTS

Suffolk County has retained the following persons to develop the County's radiological emergency response plan.

1. FPC - Vockhess of McLean Virginia, a firm with extensive experience in local radiological emergency planning and preparedness will have the overall responsibility for preparation of the plan. FPC-Vockhess has worked on radiological emergency response plans for local governments at twelve nuclear sites - - the most recent being at San Luis Obispo County regarding the Diablo Canyon plant, and near Cleveland, Ohio, for the Perry plant.
2. Philip B. Herr, Professor of Planning at MIT, is a member of the County Executive's Steering Committee which is overseeing the emergency planning effort and will provide guidance and advice to FPC-Vockhess. Professor Herr has prepared analyses and testified on the status of emergency preparedness in NRC proceedings concerning the Seabrook Plant in New Hampshire and the Pilgrim II Plant in Massachusetts.
3. Dr. Kai T. Erikson, Professor of Sociology at Yale University and Editor of the Yale Review, joined by Dr. James H. Johnson, Assistant Professor of Geography at UCLA who has performed extensive research on the emergency response of residents near the Three Mile Island plant, will study the sociological aspects of radiological emergency response planning on Long Island. They will be assisted by Dr. Donald J. Sieglar, Assistant Professor of Geography at Old Dominion University; Dr. Walter C. Farrel, Jr., Professor of Community Studies, University of Wisconsin at Milwaukee; and Dr. David Stevenson, Department of Psychiatry, University of Chicago.

4. Dr. Fred Finlayson, of Los Angeles, California, will perform the consequence analysis for the County's emergency response plan. Dr. Finlayson recently provided technical direction to the State of California in its evaluation of Emergency Planning Zone Requirements and served as a consultant to the NRC's Special Inquiry Group which investigated the accident at Three Mile Island.
5. Dr. Robert J. Budnitz, president of Future Resources Associates, Inc., in Berkeley, California, will join Dr. Finlayson in the area of probabilistic risk assessment. Dr. Budnitz is a former Director of the Office of Nuclear Regulatory Research, Nuclear Regulatory Commission, and in 1979 served as technical coordinator for the NRC's Special Inquiry into the Three Mile Island accident.
6. Dr. Edward P. Redford, Director of the Center for Environmental Epidemiology at the University of Pittsburgh, will study the health effects of a possible nuclear accident on the population of Suffolk County. Dr. Redford was formerly Chairman of the BEIR (Biological Effects of Ionizing Radiation) Committee of the National Academy of Sciences.

This report is a draft and, as such, it has no status until it has been considered and acted upon by the Suffolk County Legislature.

RADIOLOGICAL EMERGENCY RESPONSE PLAN

For The

SHOREHAM NUCLEAR POWER REACTOR

REPORT

OF

THE SUFFOLK COUNTY LEGISLATURE

February 17, 1983

INTRODUCTION

The Suffolk County Legislature is an elected, 18 member legislative body for Suffolk County, New York. The siting of a nuclear power reactor by the Long Island Lighting Company within the borders of Suffolk County raises issues of a type and magnitude which had not previously been considered by the Legislature. While many of the issues related to the construction and operation of a nuclear power reactor are beyond the jurisdiction of a county, the question of an effective and timely off site radiological emergency response plan is a matter which a county is primarily and uniquely qualified to address. In a March 30, 1979 report entitled "Areas Around Nuclear Facilities Should Be Better Prepared For Radiological Emergencies", The General Accounting Office, the investigation arm of the Congress, stated:

Nuclear facilities rely on State and local governments for responding to offsite emergencies and initiating protective measures... In the past, NRC has primarily directed its efforts at the State level. However, the States' emergency response activities are primarily related to the restoration or recovery phase of an emergency, and only secondarily address initial-response or public protective actions. For the most part, immediate offsite emergency response actions must be taken by local government authorities. (p. 14)

The members of the Suffolk County Legislature concur with the preceding extract from the General Accounting Office's report, and believe that, in the absence of a radiological emergency response plan which has been formulated at the county level and which provides for all the unique characteristics of the county and its resources, there can be no timely, effective and implementable plan. In the absence of such a plan having the

full support of the county and its government, the public health and safety cannot be adequately protected. In keeping with this belief and in view of the unprecedented nature of the issues raised in determining the adequacy of a radiological emergency response plan, the Suffolk County Legislature has vested in itself the ultimate authority of approving or disapproving such a plan.

In the course of its consideration of this matter, the Suffolk County Legislature has committed a substantial amount of resources and a significant amount of time. The Legislature directed the County Executive office to retain nationally recognized authorities to assist in the formulation of the criteria for developing the best plan possible, taking into account the unique characteristics of the county. Studies were undertaken of the probability of a serious accident, its potential consequences, and the possible behavior of emergency workers in the event of a serious accident which threatened their families as well as the population in general. In all, almost one-half of a million dollars was expended in completing these studies. The Legislature held 9 days of public hearings on this issue. Additionally, most of the members of the legislature toured the Shoreham nuclear power reactor and traveled to Harrisburg, Pennsylvania to meet with government officials who were responsible for responding to the accident at the Three Mile Island reactor and to hear from the residents of the area their reaction to the accident and its aftereffects. Briefings on some

of the technical issues were conducted for the members, and many spent some of their own time in independently learning about these issues. In order to assist the members in arranging and conducting the hearings, the legislature retained the services of a special counsel who, for the last seven years, had served as the sole staff members responsible for nuclear matters to the U.S. House of Representatives' Committee on Interstate and Foreign Commerce which has jurisdiction over all matters related to the commercial operation of nuclear reactors and who had been involved in all legislative issues concerning nuclear issues which had been involved in all legislative issues concerning nuclear issues which had been considered by the House in the last few years. As a result of these actions, the legislature's consideration of this matter was both serious and informed.

The following sections of this report will contain, (i) an explanation of the history of the Suffolk County Government's efforts to formulate an emergency response plan; (ii) a summary of the testimony presented at the legislature's hearings; (iii) an explanation of the Legislature's conclusions of the major issues raised in formulating a radiological emergency response plan, and (iv) the findings of the Legislature.

BACKGROUND SECTION FOR LEGISLATIVE REPORT

The County's Planning Efforts

Under Section 10 of the New York State Municipal Home Rule Law, Suffolk County is charged by law to protect the health, welfare and safety of its residents. Among the disasters that could strike the County is a radiological accident at the Shoreham Nuclear Power Station (Shoreham) which is situated near the village of Shoreham, a Suffolk County community located on the North Shore. Shoreham is owned and operated by the Long Island Lighting Company (LILCO).

A severe accident at Shoreham could send radioactive fission products into the environment far beyond the plant site, thus posing a grave health and property hazard to the citizens of Suffolk County. Recognizing the potential danger posed by the Shoreham nuclear plant, particularly in the wake of the Three Mile Island accident, Suffolk County entered into an agreement with LILCO on September 18, 1981 to develop a radiological emergency response plan (RERP). The task of developing the plan was assigned to two members of the Suffolk County Planning Department. However, by the end of 1981 and in early 1982 higher level officials in both the County Executive's Office and the County Legislature became concerned with inadequacies they perceived in work being performed on the plan. In particular, those officials found that the planning to date was unsatisfactory because it failed to account for the problems posed by Long Island's elongated shape, its limited roadway

emergency learned from TMI, and it relied without question on the appearance of all required emergency personnel. In addition, the dimensions of the emergency planning zone (EPZ) and the plan in general were not based upon an analysis of the specific types of accidents and consequent fission product releases that could result from an accident at Shoreham, nor did it investigate the health consequences to the public of such releases. In short, the plan ignored local conditions and site specific circumstances and thus was deficient for the purpose of protecting the public from an accident at Shoreham.

Based upon these perceived deficiencies and mindful of its mandate to protect the health and safety of its citizens, the Legislature on March 23, 1982 passed Resolution No. 262-1982 which ceased the planning effort then underway, returned to LILCO all money paid under the September 1981 agreement, and undertook to develop a plan which would be sensitive to the local conditions and circumstances which the previous planning efforts had overlooked. Resolution No. 262-1982 stated further that no plan would be operable or deemed adequate and capable of being implemented until approved by the Legislature. By the same token, no RERP for Suffolk County could be submitted to federal authorities for review absent such approval. The resolution made an initial appropriation of \$375,000 for preparation of the RERP.

County Executive Peter F. Cohalan signed Resolution No. 262-1982 on March 25, 1982 and four days later established a Steering Committee consisting of both County personnel and outside experts to oversee the plan's development. The Committee proceeded to

gather a team of experts in such areas as planning, traffic analysis, nuclear accident risk assessment, nuclear accident consequence analysis, human behavior, and the medical effects of radiation. Work commenced on the plan in mid-April 1982 and continued diligently thereafter.

LILCO'S Unauthorized RERP

Despite the formation of the Steering Committee and the County's commitment to develop the best RERP possible, LILCO gathered the working papers that had been prepared by the County's planning Department -- and which the County had previously rejected -- and on May 10, 1982 submitted them for review to the New York State Disaster Preparedness Commission (DPC). Though LILCO submitted the documents without any authorization from the County, it nevertheless bound them in binders identifying them as the "Suffolk County Radiological Emergency Response Plan."

The County Executive informed Governor Carey and the DPC on May 14, 1982 that the LILCO plan which purported to be that of Suffolk County was, in fact, not the County's plan and requested that the DPC not review it. In addition, on May 18, 1982, the County Legislature passed Resolution Nos. 465-1982 and 457-1982. The former reaffirmed the County's commitment "to assure that the best possible plan and preparedness are developed to protect the citizens of Suffolk County." The latter noted the County's firm opposition to any action by the State of New York which recognized LILCO's ability to prepare a plan for Suffolk County without the approval of the County. Both resolutions also noted that the County was submitting the previously rejected work of

the Planning Department under the guise of Suffolk County's RERP and reiterated that only a RERP approved by the Legislature would be implemented in Suffolk County.

Despite the County's protests, the DPC staff proceeded to review the LILCO RERP. That review resulted on June 9, 1982 in the determination that the plan was deficient in a number of areas and thus "unsatisfactory for submission to the full Commission." However, on October 6, 1983, LILCO resubmitted an amended version of its unauthorized RERP to the DPC. In its accompanying letter, LILCO conceded that "neither our original plan which we submitted on May 10, 1982 or this revised plan, has been approved by Suffolk County." William Hennessey, Chairman of the DPC, advised the County by letter of November 12, 1982 that he was requesting the Commission to review the LILCO RERP. Ignoring the County's subsequent protests, Mr. Hennessey then informed the County by letter of November 29, 1982 that the Commission intended to hold a meeting on December 8, 1982 to review the unauthorized LILCO RERP.

After the DPC rebuffed further protests, the County, on December 6, 1982, sought and received an order by the Supreme Court of New York, sitting in Suffolk County, ordering that the DPC show cause why it was not exceeding its authority in reviewing a local RERP developed by other than a local government. The next day, the Supreme Court in Albany issued a temporary restraining order which enjoined the DPC from conducting the LILCO RERP at its December 8 meeting.

On [unclear] the DPC and LILCO entered into an

agreement under which the DPC agreed not to review LILCO's RERP until February 23, 1982, by which time the County legislature would have held hearings and made a decision regarding its RERP.

The County's RERP'

During the time that LILCO was seeking to promote its own unauthorized local radiological emergency response plan, the Steering Committee and its team of experts continued their work on a plan that was sensitive to the problems and conditions on Long Island that might hamper an effective emergency response. Their efforts culminated in the development of a plan consisting of three large volumes which County Executive Cohalan submitted for the Legislature's review on December 2, 1982.

The Legislature held eight days of hearings on emergency planning commencing on January 17, 1983 and ending on January 27, 1983, during which it heard testimony from a number of Suffolk County agencies and experts put forth by both the County and LILCO. In addition, three days of the hearings were devoted to receiving testimony from concerned organizations (both pro and anti-Shoreham) and citizens. The hearings compiled a record of 1,590 pages of testimony and many supplemental documents.

BACKGROUND

Under the provisions of Resolution 262-82, The Suffolk County Legislature is vested with the responsibility with determining if any radiological emergency response plan, either as submitted to or as modified by the Legislature, provides reasonable assurance that the public health and safety of those living and working in the vicinity of the Shoreham nuclear power plant would be adequately protected in the event of an accident which involved or threatened to involve the release of radiation beyond the boundary of the reactor site, thereby requiring the need to initiate protective actions on the part of a significant portion of the county's population.

During the course of the Legislature's hearings on the issue of radiological emergency response plans, there were three (3) proposals which were submitted as a part of the hearing record. The first proposal is identified in the record as "The Draft Suffolk County Emergency Response Plan," which was prepared pursuant to Resolution 262-82 by consultants to the County who had been retained by and worked under the direction of the Emergency Response Plan Steering Committee, chaired by Deputy County Executive Frank R. Jones. The second proposal before the Legislature was submitted by the Long Island Lighting Company and was commonly referred to as "the LILCO proposal" and which consisted of the revised LILCO submission to the New York State Disaster Preparedness Commission. The third proposal before the Legislature was submitted by Mr. Donald Davidoff, representing the New York State Disaster Preparedness Commission. This plan

was commonly referred to as "the State generic plan" and consisted of the generic State plan which was originally developed in 1981 by the State Disaster Preparedness Commission in response to 10 CFR 50 to define the role of the State of New York and its agencies and to insure adequate comprehensive emergency management in the event of a radiological emergency.

In making its decision, the Legislature was not bound to confine its inquiry to any particular plan, for the scope of the Legislature's inquiry cannot be limited by the scope of a submission. Thus, the Legislature was free to consider all three plans as well as the component parts of each plan. Moreover, the Legislature was free to consider health and safety issues which were not specifically raised as a part of any of the three plans. The Legislature also had the option of making additions, deletions, and modifications to any or all of the plans before it. Additionally, the Legislature could have drafted an entirely new plan or approved a plan conditionally, by requiring that the County Executive make specified changes to a plan before forwarding any such plan to the State Disaster Preparedness Commission or by requiring that the Long Island Lighting Company meet certain demands of the Legislature before the plan could be considered approved. Finally, the Legislature could have deferred a decision pending further study. Thus, all the parliamentary options normally available to the Legislature remained available in this case. Practically, however, some of these options were not realistic because of a stipulation in a court order which prohibited the State Disaster Preparedness

Long Island Lighting Company. Under the terms of this court order, the Commission was prohibited from considering the proposal until February 23, 1983, which was a negotiated date selected to provide the Legislature with time to review the draft county plan. While the terms of this agreement did provide time for consideration of the draft county plan, the time limitation effectively precluded the Legislature from drafting a new plan or referring the plan back to the County Executive's office for further study. However, for the reasons discussed below, these options were unnecessary.

In making its decision on the issue of a radiological emergency response plan for the Shoreham nuclear power plant, the Legislature applied the criteria contained in Public Law 96-295 (94 Stat. 780), the Nuclear Regulatory Commission Authorization of Appropriations for Fiscal Year 1980, which is the statute which mandated that the issuance of operating licenses for nuclear power reactors be conditioned on the existence of an emergency preparedness plan. In addition to requiring that the Commission promulgate standards for radiological emergency response plans, Section 109(b) of Public Law 96-295 requires that the issuance of an operating license be conditioned upon a determination that there exists a State or local radiological emergency response plan which provides for responding to any radiological emergency at the facility concerned and which complies with the Commission's standards for such plans promulgated pursuant to subparagraph (b)(1)(A) of Section 109. Thus, under the terms of Section 109 (b)(1)(B)(1)(i), there are

two requirements which must be met in order for a State or local plan to comply with the provisions of Public Law 96-295. First, the plan must provide for responding to any radiological emergency at the facility; and second, the plan must comply with the Commission's standards for such plans. Compliance with the Commission's standards is, the, not in and of itself, adequate to meet the requirements of Section 109(b)(1)(B)(i)(1).

Section 109 (b)(1)(B)(i)(II) provides that, in the absence of a plan which meets the requirements of Subclause (I), the issuance of an operating license must be dependent upon a determination that there exists a State, local or utility plan which provides reasonable assurance that public health and safety is not endangered by the operation of the facility concerned. Thus, Subclause (II) retains the requirement contained in Subclause (I) that there must be a plan for responding to a radiological emergency before a license to operate a reactor can be issued by the Nuclear Regulatory Commission. The distinction contained in Subclause (II) is the criteria to be used in determining the adequacy of the plan. Rather than relying on compliance with the NRC's regulations, which is one of the two criteria mandated in Subclause (I), Subclause (II) required that there be a finding that the plan provides reasonable assurance that the public health and safety is not endangered by the operation of the facility concerned.

In summary, the requirements of Public Law 96-295 are: A) there must be a radiological emergency response plan for responding to accidents releases of radiation; B) the plan must

facility which is the subject of the plan, which is interpreted by the legislature to mean that the plan must be (i) implementable up to and including the capability to evacuate the threatened area; and (ii) capable of responding to a complete range of accident scenarios, including the most severe class of accidents; C) the plan must, at a minimum, comply with the Nuclear Regulatory Commission's promulgated rules for radiological emergency response plans; and D) the plan must provide, at the minimum, reasonable assurance that the public health and safety would not be endangered by the operation of the nuclear facility which is the subject of the plan

The legislative history of the Nuclear Regulatory Commission's Authorization of Appropriations for Fiscal Year 1980, (Public Law 96-295) demonstrated the Congress' interest in requiring effective and implementable emergency preparedness plans. Senator Gary Hart, the Chairman of the Senate Subcommittee on Nuclear Regulation, which is the Senate subcommittee of jurisdiction over the Nuclear Regulatory Commission and its authorization, stated during the course of the Senate debate on the bill:

One of the many things that we learned in the Three Mile Island accident was that a great number of States have no plan at all, and, certainly, no plan approved, as required by law, by the NRC for evacuating people in case of an emergency, or reactor meltdown, or any serious nuclear incident.

That seemed to me and other members of the committee to be a deplorable situation. It is unthinkable that we could have had in this country for two or three decades a full-blown domestic nuclear energy industry, and yet not had preparations in the State of Pennsylvania, or in other States, for handling

emergency situations, for protecting public health and safety.

Traditionally, this has been a responsibility of the States. Some States have acted and some have not. Unfortunately, those who have not far outnumber those who have.

Mr. President, it seems to me, intolerable that we should have reactors operating in this country, three (3) months after the Three Mile Island accident, where there is no preparation whatsoever for moving people or handling the emergency that may be occasioned by an accident at that reactor. (Congressional Record, July 16, 1979, P.S. 9472)

The Senate bill would have required that any reactor which did not have a radiological emergency response plan in place within six (6) months from the date of enactment of the authorization cease operation. This was a matter which was debated at length during the course of the Senate floor debate. In discussing this issue, Senator Hart stated:

There are two fundamental issues involved here, Mr. President. One is whether we learned anything from the Three Mile Island accident. For myself, I have learned that we should not have reactors operating in this country certainly no longer than nine (9) months after the enactment of this bill, that do not have fundamental plans made to accommodate an accident and to protect the lives, the safety, and the health of the people in the area. That is a fundamental issue.

...For myself, and I think other members of our committee, we came down in terms of protecting the system as it presently exists; namely, planning done by the States, approved by the appropriate Federal agency, in this case the Nuclear Regulatory Commission, with an action enforcing mechanism; namely, if States have not done that planning, if the NRC has not approved it, then the reactor that has not been planned for, where plans have not been made to protect public health and safety, would be shut down. (Congressional Record, July 16, 1979, P.S. 9472)

Another issue debated on the Senate floor during the consideration of the NRC authorization was who should have the ultimate responsibility for formulating emergency response plans. While the debates concerned providing the NRC or the Federal Emergency Management Agency with the authority to develop a plan if a State failed to do so in order to avoid shutting down any reactor, the Senate decided to preserve the traditional prerogatives of the State and its subdivision. While the specific issue concerned having the Federal government preempt the States in this matter, it is clear that the Senate viewed the preparations of radiological emergency response plans to be a governmental function which should be performed at the State and local level. In speaking against an amendment which would have allowed the NRC to establish interim plans where the State had failed to act, Senator Simpson, the ranking Republican member on the Senate Subcommittee on Nuclear Regulation, stated:

Mr. President, I will come back to the theme I previously stressed, that is that I think generally I certainly concur with what Senator Johnson is doing with relation to assuring that there will be continuous operation of nuclear power plants. But the issue here to me is much more fundamental. That is by doing what his amendment would do, we are intruding upon an inherently State function.

The House bill also contained a provision requiring that emergency response plans be a part of any license to operate a nuclear reactor. Congressman John D. Dingell, the Chairman of the Subcommittee on Energy & Power, which shares jurisdiction in the area of nuclear energy with the Subcommittee on Nuclear Regulation, stated on the floor:

of the House during the course of the debate on the NRC Authorization bill:

There are, however, certain reforms which would be implemented immediately. Of paramount concern among these is the issue of the safety of those who live near operating nuclear power plants. The Commerce Committee adopted an amendment which would provide an additional \$1.4 million to the authorization for the Office of State Programs to enable the Nuclear Regulatory Commission to expedite the review of State radiological emergency response plans and to assist States in formulating these plans and to train their personnel to implement them. It also directs the Commission to initiate a rulemaking proceeding to establish the criteria for such plans, and to review all existing plans or other preparations made by the States to respond to such emergencies, and to notify the Governors of each State and the Congress of any deficiencies in these individual plans and preparations, and to assess each State's capability to implement such plans or preparations.

At the time of the Three Mile Island accident, only 10 States had plans concurred in by the Nuclear Regulatory Commission, and 16 States did not have such plans. Since the accident, many States have focused on the need for such plans and most have or will soon submit emergency response plans. However, the existence of a plan is not, in itself, adequate assurance. That is why the Commerce Committee believes it is essential that the criteria for radiological emergency response plans be reviewed in an open forum and be subject to debate. (Congressional Record, November 19, 1979, P. H. 11331)

The inadequacies of the existing criteria was discussed by Congressman Toby Moffett, who, as Chairman of the House Government Operations Subcommittee on Environment, Energy and Natural Resources, conducted hearings on existing emergency response plans. During the course of the House debate on the NRC Authorization bill, Congressman Moffett stated:

What did we find? We found that even in those few States where we do have emergency preparedness plans that have been concurred in by the Nuclear Regulatory Commission, even in those States, States such as South Carolina, New York, a State such as Maine, my own State of Connecticut, which is regarded as having a good plan for the Nuclear Regulatory Commission--even in those States which do have emergency plans, there is a real question about whether the folks at the local level in responsible positions really know what those State plans mean and whether the existence of a State plan insures that they do have a local plan on paper. (Congressional Record, November 29, 1979, P.H. 11331)

Thus, in enacting the Nuclear Regulatory Commission's Authorization of Appropriations for Fiscal Year 1980, the House of Representatives also imposed the requirement that the existence of a radiological emergency response plan be a prerequisite to the issuance of an operating license. But the House position went farther than the Senate by requiring that the existing standards for emergency response plans be reviewed to insure their adequacy and especially their implementability and that local officials be full participants in the process.

The Conference Report on the Nuclear Regulatory Commission's Authorization of Appropriations for Fiscal Year 1980 included a provision prohibiting the issuance of a new operating license unless there is an acceptable emergency response plan. In speaking in support of the Conference Report, Senator Hart stated:

First, the agreement contains a provision, substantially similar to the one passed by the Senate last July, that requires the NRC to condition the granting of a new operating license on the existence of an adequate plan for emergency response in

The provision acknowledges the harsh lesson taught by the Three Mile accident. That operation of a nuclear plant cannot be considered entirely safe if an adequate plan does not exist for responding to nuclear accidents, including evacuation of area residents, if necessary.

The conference report modifies the position in the Senate-passed bill that explicitly directed the NRC to condition continued operation of an existing plant upon NRC approval of the applicable State emergency response plan. The conference agreement remains silent on that issue, but by directing the NRC to "encourage and assist" States to comply with the Agency's upgraded standards, it permits the NRC to fully exercise its existing statutory authority to protect public health and safety by assuring that existing plants will have applicable to them adequate State emergency response plans.

The conferees intend that every nuclear plant ultimately should have applicable to it a State emergency response plan that protects the public from a nuclear accident. (Congressional Record, June 16, 1980, P.S. 7083)

The legislative history of Public Law 96-295 clearly indicates the Congressional intent that there be emergency response plans, that such plans, must be implementable, that such plans must include the ability to evacuate the endangered population, that such plans must have the support of both the State and local government, that emergency response planning is a government function, that such plans must, at a minimum, comply with NRC standards, and that such plans must be capable of providing reasonable assurance that the public health and safety will be adequately protected in the event of an accident which involves the release of radiation beyond the boundaries of the reactor site.

Conclusions

The question before the Legislature is: Can a radiological emergency response plan for the Shoreham nuclear power reactor be developed which provides reasonable assurance that, in the event of an accident at the reactor, timely and effective protective actions corresponding to the nature of the danger can and will be taken in order to avoid or sufficiently mitigate any threat to the public health and safety of the citizens of Suffolk County?

Because the Legislature has the authority to amend any plan before it, and thus is able to correct any perceived defects in any radiological emergency response plan before it, the question must be framed in general terms rather than in reference to any specific plan. As a result the Legislature's answer to the question before it is not limited in scope to the terms of the individual plans which were submitted as a part of the record but is instead directed towards the ability to formulate a radiological emergency response plan which realistically and effectively responds to not only the general issues which must be addressed, but also the unique problems which exist in Suffolk County.

Determining what constitutes an acceptable radiological emergency response plan is a complicated matter, because such a plan consists of a number of complex components, each of which must be addressed individually and then considered in context of their relationship to each other. The problem the Legislature faces in this matter is further compounded by the fact that some of the essential elements of a plan are those that are most difficult to

and estimates. In exercising its responsibility in regard to this matter, the legislature invited a number of nationally recognized experts in various technical fields to testify during its hearing. These invited individuals were in addition to the technical experts who accompanied the representatives of the Long Island Lighting Company (LILCO) during their appearance on January 18, 1983.

One of the fundamental questions which must be addressed by the Legislature in the course of its consideration of a radiological emergency response plan is the probability of an accident actually occurring at the Shoreham nuclear power plant. The difficulty in answering this question is that there is a wide range of accidents which could occur, with each having different consequences, both in nature and degree. As a result, it is, for planning purposes, somewhat meaningless to consider the issue of probability in isolation. As the ultimate objective of a radiological emergency response plan is to avoid and mitigate the harmful effects which result from a nuclear accident, the relevant consideration is the probability of an accident in relationship to its consequences. Generally, there is an inverse relationship between the probability of an accident and the severity of its consequences, with the severity increasing as the probability decreases. Based upon this relationship, it is argued that there is a point at which the probability of a given accident becomes so small that it is not worth planning for, even though the consequences may be extreme. Alternatively, it is

also argued that there is a point where the consequences become so small that the probability of the accident is irrelevant.

The experts retained by the County agree in theory with those retained by the Long Island Lighting Company that there are some accidents whose probability is so remote that their occurrence should not be a factor in the planning process. Thus, when discussing the "worst accident" both groups are actually discussing the worst "credible" accident which means that there are accidents which could have more serious consequences, but the odds of these occurring are so small that, in the view of the expert, they are not worth discussing. These two groups of experts do not agree on the probability of certain accidents and on the point at which the consequences do not need to be included in the planning process. It is important at this point to draw a distinction between accident consequences and health effects. For planning purposes, accident consequences should be considered in the context of a set percentage of the population being exposed to a specified level of radiation while the health effects should be considered in the context of the effects resulting from exposure to the specified level of radiation in terms of the incidents of cancer and other illnesses.

The principle dispute between the probabilistic risk assessment experts retained by the County and those relied upon by the LILCO relate to the size of the area for which planning should occur in the event of an accident. The emergency planning area is defined as the area within

approximately a 10 mile radius of the Shoreham plant, which equals the area recommended by the Nuclear Regulatory Commission and which is used for planning purposes at most nuclear plants. The NCR's recommendation of a 10 mile radius Emergency Planning Zone is based upon data from the Reactor Safety Study - WASH 1400 also known as the Rasmussen Report. Using information from this Report concerning a possible core-melt accident, a joint NCR/EPA Task Force plotted the probabilities of exceeding certain critical doses, given a severe (Class 9) accident, and found that "the probability of large doses (that is 200 rems) drops off substantially at about 10 miles from the reactor." On the basis of this work, the Task Force concluded that a 10 mile radius emergency planning zone would be adequate. It should be noted that at 200 rems, evidence of severe radiation sickness develops, characterized by nausea, vomiting, infections, loss of hair and for some sensitive persons, death.

Using the same methodology but applying a different risk criteria, the county consultants established an Emergency Planning Zone consisting of two rings, with the inner ring occupying a radius of approximately 7 miles and an outer ring of approximately 20 miles. The inner ring was established by the County consultants on the basis of a 1% conditional probability of receiving a dose of 200 rems in the event of a core-melt accident, meaning that the odds were 1 in 100 of receiving such a

... based on a 1% conditional probability
... A whole-body dose of

30 rems represents the lower levels where there are temporary but detectable changes in the blood.

In calculating the probability of a severe accident and its consequences, both the Long Island Lighting Company and the County consultants relied upon a methodology known as "probabilistic risk assessment". In the course of his testimony before the Legislature, Dr. Mathew Cordaro, Vice President for Engineering for LILCO, stated that the utility relied exclusively on this methodology in predicting the probability of an accident and its consequences at the Shoreham Facility. As used in the nuclear industry, probabilistic risk assessment is an analytic system which involves identifying all sequences of events that might occur if any given piece of equipment should fail and continuing this analysis through to describe sequences in which a major accident would occur. Then, the probability of failure of any given piece of equipment involved in such a sequence was estimated, after which the probability of a chain of failures leading to a major accident was computed.

Probabilistic Risk Assessment (PRA) is a highly controversial methodology whose creditability is far from universally being accepted. Even the Advisory Committee on Reactor Safeguards (ACRS), which is a division of the Nuclear Regulatory Commission, has raised questions as to the propriety of its use. As recently as September 15, 1982 the ACRS, in a letter to NRC Chairman Fallada on the proposed safety goals for nuclear power

The Draft action Plan notes the problems which arise in our use of PRA from the existence of large uncertainties and gaps in our knowledge but does not identify the specific processes by which PRA methodology and data would be judged and by which decisions would be made in the presence of uncertainties. We believe that this represents a major gap in the implementation plan. Either a generally accepted approach should be established (with provision to update it as necessary) for only partly developed and more controversial methodology and data, or a means should be established for independent review and judgement in the face of continuing large uncertainties....

The Draft Action Plan suggests greater application of the safety goals during the trial period than the maturity of PRA warrants....

In addition to these official reservations towards the use of the probabilistic risk assessment methodology, two members of the ACRS expressed the following personal reservations in the Committee's September 15 letter.

There is no way in which the currently proposed safety goal policy will serve any useful purpose as long as its main assessment basis is PRA...

The use of PRA for regulatory purposes is defensible if event sequences and related probabilities are well understood and the consequences to the public welfare can be clearly defined. The PRA methodology now in use does not meet these conditions.

...The foregoing is sufficient to show why PRA studies as currently performed will remain inscrutable and will, at least for the next decade, be little more than a display of logical thought based on essentially arbitrary reliability assumptions. They may permit event probabilities to be assigned very conservative boundary values, but if the mathematical interpretations are rigorous, the value will be only a measure of the data based and not a measure of public safety adequacy.

Without question, the most serious distortion of fact being introduced by the use of PRA is the claim that it can estimate the probability of a core melt. As previously noted, the NCR has not even attempted to define what it means by a "core melt."

....The claims for PRA concerning its ability to assess public safety risks are little more than a sham that will hide the fact that the basis for safety will always depend on the judgement of a few individuals.

There are numerous additional excerpts which could be cited from a wide range of authorities raising questions as to the acceptability of probabilistic risk assessment as a methodology, but it would serve no purpose at this point, other than duplicate the point which is clearly made by the preceding statements. Because of the questions raised concerning the use of this methodology, the Legislature believes that it cannot rely on the work of both LILCO's and the county's experts in regard to the probability of an accident and especially a core melt accident and its consequences, and views such data with skepticism.

In the course of their testimony to the Legislature, representatives of the Long Island Lighting Company themselves raised questions about some of the conclusions in their own probabilistic risk assessment, which was submitted in support of their application for an operating license. Based upon what was said to be "new evidence", LILCO's spokesman said that the previous estimates of the release of certain "source terms", which are radioactive materials released during an accident, had been overestimated and actually smaller quantities would be released, thereby reducing the extent of the danger. Using this information, LILCO's experts argue that the consequences of an accident would be substantially less than previously predicted by the county's experts and that on the basis of this new information, the probability of exceeding a dose of 30 rems at

10 miles was only 1%. Given that the Nuclear Regulatory Commission has not reviewed and confirmed this information, it would be premature for the Legislature to preempt the Commission on such a technical matter.

During the course of their testimony, LILCO representatives also objected to the 20 mile radius emergency planning zone on the grounds that, by substantially increasing the size of the zone, the county consultants significantly increased the population, thereby making planning more difficult. The Legislature finds this argument to be unpersuasive. The responsibility of a government is to provide protection to all its citizens whose health and safety is threatened, and it cannot abandon a portion of its population on the grounds that protecting them is difficult. Such a suggestion places the Legislature in the position of having to choose between allowing a risk to the public health continue at the expense of the safety of a portion of its citizens. When confronted with such a choice, it would be preferable to eliminate the risk than jeopardize the health and safety of the county residents.

In regard to the issue of the size of the emergency planning zone, the Legislature finds that the operation of a nuclear power plant within the borders of the County creates a risk to the health and safety of the citizens of Suffolk County which requires that the Legislature take every action to mitigate and, where ever possible, eliminate. Although the Legislature concedes that the probability of an accident having serious

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consequences is small, and in some cases perhaps even smaller than certain nonnuclear accidents, the fact remains that an accident could happen. Although the odds are small, even the controversial Rasmussen Study concluded that a serious accident could happen. Even though the odds may be as high as 1 in 20,000 per year, or 1 in 200,000 per year, that 1 could happen on any day at any reactor, including the Shoreham reactor should it ever become operational. Given the potential adverse health consequences of a serious accident, emergency response planning must be based upon the worst possible assumptions. The Legislature believes that by so doing, planning efforts are enhanced and the options available are increased.

The Legislature believes that emergency response planning must protect the citizens of Suffolk County from both early fatalities and latent illnesses. An emergency planning zone based upon a dose of 200 rems, which is the level at which early fatalities are produced, fails to provide adequate protection of the public health and safety. The Legislature finds of particular interest the fact that during the Three Mile Island accident, the chairman of the Nuclear Regulatory considered evacuating an area within 20 miles of the plant, even though the Commission's guidelines recommend as area of 10 miles. While the Legislature endorses the concept of an emergency planning zone which would reduce the probability of an exposure of 30 rems to the Legislature is concerned about the danger to the citizens and thus believes that future

consideration should be directed towards lowering the exposure level to 5 rems, which is the level at which the Environmental Protection Agency recommends taking protective action.

In addition to the health concerns, the Legislature believes that an emergency planning zone of at least 20 mile radius is a practical necessity because of the likelihood of the "shadow phenomenon," which refers to the tendency of people during a radiological emergency to evacuate voluntarily and spontaneously. The Legislature believes that people have a unique perception of nuclear risks, and that perception will cause them to behave differently from the manner in which they would in the event of a nonnuclear accident or threat. As a result, the Legislature finds that nonnuclear incidents, and especially those involving evacuations, do not provide reliable estimates of people's behavior during a nuclear incident and that emergency planning must anticipate this shadow phenomenon, which was evidenced during the accident at the Three Mile Island nuclear reactor. In this regard, it is interesting to note that, during their appearance before the Legislature on Thursday, January 27, 1983, the representatives of LILCO denied that any evacuation occurred during the course of the Three Mile Island accident. In a subsequent letter dated January 31, 1983 to the Presiding Office concerning another issue related to the hearings, Mr. Ira Freilicher, Vice President of the Long Island Lighting Company, and the individual who denied that any evacuation occurred at Three Mile Island, conceded that approximately 140,000 people

did evacuate the area despite the fact no evacuation was ordered. The only official announcement was an advisory that pregnant women and small children leave, which groups combined totaled less than 2,500.

The centerpiece of any radiological emergency response plan rests in its ability to evacuate in a timely manner that endangered population in the event of a serious accident. In establishing the requirement that the existence of a radiological emergency response plan be precondition to the issuance of an operating license, the Congress clearly intended that, no matter how small the odds, the essential feature of any such plan must be the ability to conduct an evacuation of the threatened population. As stated in the Report of the Committee on Environment and Public Works, which had jurisdiction over the legislation which imposed the requirement that such a plan be a condition of an operating license:

In the wake of the accident at Three Mile Island, the logic of low probability can no longer be allowed to justify less than priority treatment of emergency preparedness. (S. Report. No. 96-176, p. 27)

During the course of the floor debate in both the House and Senate, emergency preparedness is synonymous with evacuation, with the members using both interchangeably. The legislative history of the Nuclear Regulatory Commission's Authorization of Appropriations for Fiscal Year 1980, which establishes the emergency plan requirements, demonstrates that an evacuation plan is a necessary component of any emergency response plan. In addressing in this

legislation. As stated during the Senate floor consideration of this bill by the Chairman of the Subcommittee on Nuclear Regulation, Senator Hart, who was the floor manager for this legislation and was subsequently chairman of the Conference Committee:

It is important that we have electricity and that we have energy in this country. There is no question about it. It is also important that we do not kill people or radiate them in the process.

That is the real issue here--whether we should permit a nuclear reactor to operate in this country if, after 6 or 9 months (which was all the time the pending bill would have given existing plants to develop a plan before it would lose its operating license) there is no plan whatsoever to evacuate the people in the case of an accident. That is the issue.

Given the legislative history of the radiological emergency response plan requirement, any discussion of the low probability of an accident which would require an evacuation is irrelevant, for it was Congress' clear intent that an ability to evacuate an area be an essential part of any emergency plan.

Any considerations of developing a radiological emergency response plan for the Shoreham nuclear power reactor must begin by confronting the one, single, most overriding feature of the area, and that is that the reactor is build on an island. Long Island is surrounded on all 4 sides by water, and the only land route off the island which is the only means most of the population would use, is by a limited number of bridges and tunnels. There is no direct off the island directly to the mainland, which occupies the eastern

two-thirds of the island, is bounded entirely on its western side by Nassau County, which itself is bounded on its western side by Queens County on its northwest border and by Kings County on its southwest border. Traffic exiting Suffolk County must pass through these heavily populated areas to get off the island. Traffic leaving the island must then pass through New York City. Thus, even if an evacuation were to occur during a non-rush period, exiting traffic would have to pass through some of the most densely populated and congested areas of the country.

The Shoreham nuclear power reactor is located on the northern shore towards the eastern end of the island at a distance of approximately two-thirds of the length of the island. An emergency planning zone with a 10 mile radius would occupy approximately two-thirds of the width of the island and a 20 mile radius EPZ would extend about 5 miles into the ocean on its southern side. Most of the area of an EPZ on the northern side of the plan would be part of Long Island Sound, with a small part of a 20 mile radius EPZ extending into Connecticut. Within the 20 mile Emergency Planning Zone, there is a total resident population of about 635,000 people, which, because of the tourist industry in the area, is increased by approximately 100,000 during the summer months. There are approximately 100,000 permanent residents living west of the plan just within the 20 mile EPZ, and, during the summer months the population within the 20 mile EPZ living west of the plant increased to a total of

It should be noted that there are

land areas west of the plant which are beyond the twenty mile EPZ whose population has not been included in the previous calculations.

The fact that the Shoreham nuclear power plant is located on an island which is less than 20 miles wide creates some unprecedented problems for planners, because for the vast majority of the residents of Suffolk County, evacuation can occur in only one direction, which is to the west. It is believed that most of the people living east of the plant will also evacuate in a western direction, in order to avoid the fear of being trapped at the eastern end of the island with no means of escape, should the winds move the radioactive plume in that direction. Thus, unlike previous situations where evacuation of an area was, even for plants located on an ocean shore, always away from the plant in a circular or semicircular direction, a significant portion of the population wishing to evacuate Suffolk County in the event of an accident at the Shoreham nuclear power plant will have to pass by the plant, and perhaps into the direction of the plume. As indicated by hearings for the public conducted in the town of Riverhead, which is located east of the plant, a majority of the residents of that area who testified stated that they would evacuate to the west and were deeply concerned and resentful that they were being confronted with this possibility. Moreover, people living beyond the 20 mile zone to the west of the plant testified that, in their opinion, all plans were inadequate to deal with the possibility of a major accident in the

event of an accident, even though wind changes may leave them exposed with no escape routes other than in the direction of the plume.

The ability of those living east of the plant to evacuate in a westward direction may be further complicated by traffic congestion caused by those living west of the plant also trying to evacuate in a westward direction. There are a limited number of major thoroughfares on Long Island all of which could become easily congested in the event of a mass evacuation. These roadways are already experiencing (Continued on next page)

problems handling the daily traffic, especially during the summer months.

Experts retained by the County made a number of estimates of the time which would be required to evacuate certain areas. For planning purposes, the outer ring of the emergency planning zone was divided into 6 sections, with the inner ring being considered a separate section. In the event of an accident, the path of the plume would be plotted, and only those sections in the direction of the path would be directed to evacuate, thereby theoretically reducing the number of evacuees. Using this division, a number of estimates were made of the time which would be required to evacuate the inner ring and selected outer sections. Estimates were first made of the time required for workers to receive notification of an accident and an order to evacuate. Under these figures, 50% of the population was assumed to receive notification within 25 minutes of the first announcement, with that figure rising to 80% within 30 minutes. It was further estimated that 50% of the workers would leave their job within 10 minutes of learning of the notice, with an additional 40% leaving within 20 minutes of receiving such notification. An estimated 70% of the workers were assumed to arrive at their home within 20 minutes of leaving work, with an additional 18% requiring 40 minutes or more. After arriving home, it was estimated that 30% of the workers would be prepared to leave within 30 minutes of their arrival, and that 60% would be prepared to leave within 45 minutes of arriving home. Thus, for the vast majority of residents, at least one hour must be allotted to learn of the evacuation order, leave work, travel home and then prepare to evacuate. It was estimated that it would take 1 hour and 40 minutes for 50% of the auto owning population to actually leave their home.

County planners then developed eight scenarios, varying in time of year, weather conditions, possible traffic constrictions, population growth, and "shadow effect" sensitivity. Using these variables, the county consultants then estimated the time required to clear the zone or a combination of zones. If the time required to evacuate the inner zone ranged from

a low of 3 hours and 45 minutes (during the winter with no adverse weather conditions) to a high of 5 hours and 15 minutes (during the winter with adverse weather conditions), the time required for clearing the inner zone plus one or two of the outer zones increased dramatically. For example, when the inner zone and the western zone are to be evacuated, the estimated evacuation times range from a low of 13 hours and 45 minutes (during winter with no adverse weather conditions) to a high of 22 hours and 15 minutes (during adverse winter weather conditions). When the west-south western zone is added to the preceding two zones, the time estimates range from a low of 17 hours and 30 minutes (during the winter with no adverse weather conditions) to a high 28 hours and 30 minutes (during adverse winter weather conditions). The lowest combined time estimates occur when just the inner zone and the eastern zone are combined, with a low estimate of 3 hours and 45 minutes (during restricted north and south fork traffic in non-adverse winter weather conditions) to a high of 6 hours and 45 minute (during adverse winter weather conditions). However, when the adjacent zone to the south is added, the highest time estimate rises to 12 hours and 30 minutes (during summer tourist conditions). In making these estimates, the county consultants retained normal traffic flows, in the sense that east bound lanes remained east bound, rather than being converted to west bound to accomodate additional volumes of traffic. This was thought to be necessary to accomodate those who were returning home to pick up their family.

The evacuation time estimates of the county consultants are based upon a number of assumptions, including assumptions that certain common, ordinary everyday experiences will not happen. No provision is made for cars running out of gas, mechanical breakdowns or accidents. the occurrence of any one of which could result in a blocked traffic lane and extend the time required to evacuate an area. As this report is being written, a heavy snowstorm has hit this area, leaving more than a foot of snow. This has paralyzed traffic, but, more importantly, traffic lanes, including those

evacuation time estimates, it is not improbable that some people may become frustrated or apprehensive about the slow rate of progress and abandon their cars in traffic, as they did during this winter storm, especially if they feel their or their family's health and safety is being threatened by remaining in place. As noted by Suffolk County Police Commissioner Donald J. Dilworth in his testimony:

It must be remembered that we are not dealing with people just in a traffic jam, but people who are experiencing an emotional and potentially dangerous situation. We note that the evacuation time estimates in the plan do not take into account many practical problems such as people running out of fuel, cars breaking down, and accidents. Such problems are found to hamper any evacuation. In addition, the performance of traffic control will most definitely be hampered by a lack of obedience to the rules of the road and a person's desire to get out of the area as quickly as possible.

All of the plans assume that the police will be available to assist the flow of traffic, and the LILCO plan is particularly vulnerable on this point, because it is dependent upon police directing traffic at certain locations and erecting barricades at other locations to prevent the flow of traffic in certain directions. However, Commissioner Dilworth explained that it would take 1 to 2 hours to contact the required number of off-duty police officers needed to implement an emergency plan, and it would require an additional 4 to 5 hours for them to respond to designated locations. Even this time estimate could be optimistic for it assumes the police officers do not encounter traffic problems in reporting for duty.

Another problem identified by Commissioner Dilworth concerned the burden the displacement of hundreds of thousands of people would place on those sectors of the County which are not within the evacuation area. Specifically, the Commissioner stated:

The repercussions of the evacuation will be felt throughout this County and into Nassau County and New York City. The potential for certain segments of the population to use this to their best advantage cannot be overlooked. During this emergency, the potential of civil disorder, looting and an increase in other types of crimes exists and must be planned for.

The most critical problem identified by Commission Dilworth concerned the potential loss of the police communications system, which is located just within the 10 mile radius of the plant. If the Communications Center had to be evacuated, police would lose the ability to communicate by radio with the officers in the field, and thus would be unable to move them to trouble areas, even if traffic conditions made such moves possible. This is also the center for receiving emergency calls so people seeking emergency assistance throughout the county would be unable to contact the police by dialing 911. In the words of the Commissioners:

If you lose your communication, you lose control, your command ability. You couldn't dispatch a person out, you could give him no guidance. Each police officer would be acting as an individual unit, using his own best judgement. Usually their judgement is excellent and I hope in that case they would do the best they could. But you would lose the ability to have a unified force. (p. 1249)

On the issue of whether people would behave differently during a nuclear accident, Commissioner Dilworth stated:

Quite, quite different. In the reaction of people, there's a certain fear that's related to this thing doesn't come with a storm or even fire, for that matter, that's restricted to a certain area. But just as our policemen -- we can deal with that which we know we can't do, certain attributes. When you're dealing with radiation, all the horrors associated with it, that's a different thing entirely. (p. 1249)

On the crucial question of whether Suffolk County could be evacuated, there was the following exchange:

Mr. Allgrove: ... From the two questions that I have asked you already, it would seem to me that my interpretation would be that this type of planning in your book -- and correct me if I am wrong -- is useless.

Commissioner Dilworth: Well, it's a plus, and given the conditions that we would anticipate at the time, it would be -- to have a timely evacuation would be most difficult. (p. 1271)

Mr. Allgrove: Time.

Commissioner Dilworth: Timely.

Mr. Allgrove: Timely. And your answer is based upon a parameter of what distance?

Commissioner Dilworth: The numbers of people involved who live in that area; the experience that there has been reported in other sections those who would evacuate before the word is given to evacuate; the masses attempting to put the greatest distance between the SNP and themselves, at one time would certainly over-load our network of highways; we discussed the configuration of the Island and this difficulty, and we feel that it is a most difficult task.

Mr. Allgrove: We have sat here for almost -- going on the second week now and we have listened to experts in all of the fields from one corner of the globe to the other; specifics upon specifics, interpretations, just about everything has flowed into these hearings, and it seem to me that every night I go home and I try to evaluate what has been done that particular day, I come to the realization that an evacuation plan for this area is just not feasible. Do you feel the same way?

Commissioner Dilworth: Well, the key word was "utilization". We deal in reality and our feelings are about the same; its most difficult to evacuate an area of that size in any given time frame.

Given Commissioner Dilworth's position within the County government, his familiarity with the county, its citizens and its roads, and his understanding of human behavior, the Legislature must give great weight to his opinions. Against this testimony are a series of paper studies and computer calculations by experts retained by both the county and the Long Island Lighting Company, and while the studies done by the county's consultants are not necessarily in conflict with Commissioner Dilworth's testimony, the Commissioner's conclusion's are clear.

One of the important questions in estimating the ability to evacuate an area is time, in the sense of how much time will be available to warn and prepare the citizens. Given enough time, any evacuation can work regardless of the number of people or the size of the area. The Legislators believe that, for planning purposes, it must be assumed that time available will be limited,

amounting to less than a few hours. The Reactor Safety Study indicates that major releases may begin in the range of one-half hour to as much as 30 hours after the initiating event, and that the duration of the release may last from one-half hour to several days with the major portion of the release occurring well within the first day. The time available for responding is, to a great extent dependent upon how quickly the reactor operator notifies county officials that an accident has occurred. Although most plans call for prompt notification, the Legislature is aware that, in the past, utilities have not promptly notified local and State officials and even Federal officials. In the Three Mile Island case, utility officials did not notify State or county officials until 3 hours after the initiating event occurred.

Finally, the Legislators believe that emergency planning is fundamentally a government function that can best be performed by the county, and therefore the Legislature condemn efforts by the Long Island Lighting Company to usurp this function. And the Legislature will oppose with equal vigor any attempt of the State to impose a plan upon the county. The essential role of local government in implimenting an emergency response plan was identified by the General Accounting Office in a report entitled "Areas Around Nuclear Facilities Should Be Better Prepared For Radiological Emergencies". Specifically, the report stated:

Nuclear facilities rely on State and local governments for responding to offsite emergencies and initiating protective measures.....In the past, the NRC has primarily directed its efforts at the State level. However, the States' emergency response activities are primarily related to the restoration or recovery phase of an emergency, and only secondarily address initial -response or public protective action. For the most part, immediate offsite emergency response actions must be taken by local government authorities. (p. 14)

....The role of State agencies is limited during the initial emergency phase because, generally, their emergency resources and personnel are located too far from fixed nuclear facilities to initiate immediate protective measures for safeguarding the public. Thus, responsibility for initial response rests with local authorities. They are responsible for protecting health and safety within their jurisdiction, are closest to the accident site, and would be expected to initiate protective measures. During the initial emergency phase, the State's role is usually limited to providing support and assistance to local

efforts for safeguarding the public.(p. 19)

Since communities in the vicinity of nuclear powerplants and installations would be the first to receive any offsite radiological release, they are basically responsible for implimenting the first line of defense. They may include monitoring and assessing the radiological release and implimenting necessary protective measures. Thus, local authorities have a vital role in preforming emergency measures for safeguarding the public. (p. 20)

Given their responsibilities and proximity, the Legislature believes that both the State and Federal governments should defer to the County's judgement as to what is in the best interests of its citizens and their public health and safety.

FINDINGS

Based upon the evidence, testimony, hearing record and conclusions, the Suffolk County Legislature finds that:

1. although the probability is small, a serious accident at the Shoreham nuclear power reactor could occur at any time during the plant's useful life;
2. given the geographic configuration of Long Island and the location of the Shoreham nuclear power plant in relation to that configuration, the magnitude of the population which would be exposed to levels of radiation in excess of 5 rems, and the limited number of land routes available to evacuate the area, a timely evacuation of those Suffolk County citizens in the path of the plume could not occur in the event of a fast developing release at the reactor;
3. none of the plans submitted to date and no proposed change to such plan offers or could offer adequate protection of the public health and safety of those living east of the Shoreham nuclear power reactor;
4. in the event of a serious accident at the Shoreham nuclear power plant, there should be a range of protective actions available to the citizens of Suffolk County which could be taken in a timely manner which would prevent any exposure to higher level than that level at which the Environmental Protection Agency recommends that protective actions be taken, which is 5 rems;

5. as no plan can be devised or preparation made which would provide reasonable assurance that the citizens of Suffolk County would not be exposed to a level of radiation in excess of 5 rems, or even 30 rems, the operation of the Shoreham nuclear power reactor poses an unreasonable threat to the public health and safety
6. as planning for a radiological emergency must place the responsibility for the initiation of a response at the county level of government, no plan can be devised without the full cooperation of the county government;
7. Without the support of the Suffolk County government, no radiological emergency response plan can be implemented, and thus such a plan would, by definition, fail to provide reasonable assurance that the public health and safety will be protected.

REPORT OF
SUFFOLK COUNTY EXECUTIVE
PETER F. COHALAN

CONCERNING
RADIOLOGICAL EMERGENCY PREPAREDNESS
IN SUFFOLK COUNTY

February 16, 1983

G. Resnick

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REPORT OF SUFFOLK COUNTY EXECUTIVE

PETER F. COHALAN

CONCERNING RADIOLOGICAL EMERGENCY

PREPAREDNESS IN SUFFOLK COUNTY

I. INTRODUCTION

The Shoreham Nuclear Power Station, an 820 MWe boiling water reactor (BWR), is being constructed within Suffolk County on a 500 acre site on the north shore of Long Island near the village of Wading River. Construction of the plant, now nearing completion, has been ongoing for over a decade at a cost estimated to be \$3.2 billion. The Long Island Lighting Company (LILCO), which owns Shoreham, predicts that the plant will be ready to load fuel in June of this year, with commercial operation to follow early in 1984.

A serious nuclear accident at Shoreham would release significant radioactive fission products into the environment. The impact of such an accident on the health, welfare, and safety of the people of Suffolk County and the value of its property would be severe.

By law, Suffolk County has an obligation to protect the health, welfare and safety of its citizens. See for example Section 10, New York State Municipal Home Rule Law. Thus, it is the duty of the County to prepare for emergencies in an

effort to avoid injury to life and property. Never before, however, has the County been faced with the task of planning for an emergency with the potential magnitude and complexity of a nuclear accident at Shoreham.

Many circumstances existing on Long Island make emergency planning and preparing for a Shoreham accident a particularly difficult task. Suffolk County has 1.3 million residents, and that population swells in summer when visitors are attracted to the County's many recreational facilities. Under the best of circumstances, protective actions for the portion of this population affected by a Shoreham emergency would be difficult. However, circumstances existing on Long Island coupled with the unique nature of a radiological emergency make preparedness for Shoreham even more difficult. For example, the unique configuration of Long Island, an elongated, narrow island, as well as its limited road network, present problems for any attempted evacuation. A 360 degree dispersal of evacuating traffic is impossible. Furthermore, the unique nature of radiation -- being an invisible hazard undetectable by human senses -- is likely to cause behavior that will hamper the effectiveness of any evacuation as people attempt to retreat from a danger they cannot see, hear, touch or smell. Finally, a radiological emergency of the magnitude that could occur at Shoreham would place overwhelming demands upon County resources, but significant numbers of emergency personnel are

pected to concern themselves first with the safety of their families.

To be workable, any plan developed to meet the threat of a radiological emergency at Shoreham must take into account and overcome these unique problems. Furthermore, such a plan must be developed with knowledge of the specific consequences of an accident at Shoreham, both in terms of fission products released from the plant, the resulting doses of radiation to the human body at specific distances from the plant, and the health effects of such doses on the people exposed to the radiation.

Earlier this year, the Suffolk County Government, exercising its duty to protect public health, safety, and welfare, undertook to develop a plan for a radiological emergency at Shoreham that was sensitive to the local conditions existing on Long Island. In so doing, it commissioned the talents of nationally-known experts in the scientific and technical disciplines related to radiological emergency response planning. After months of effort, this team has developed the best possible plan for Suffolk County -- one that is sensitive to the unique problems of Long Island and to human behavior. This Draft County Plan is now before the County Legislature for its review.

The purpose of this Report is to review the data which are before us concerning the provisions of the Draft County Plan. These data compel the conclusion that the Draft Plan should be

rejected and that, in fact, no emergency response plan would protect the health, welfare and safety of Suffolk County's residents from an accident at Shoreham.

II. SUMMARY OF CONCLUSIONS

A nuclear accident at Shoreham that caused the release of significant radiation into the environment of Suffolk County would have a serious impact on the health, safety and welfare of Suffolk County's residents. Computer analyses reveal that even if the public were to take protective actions, there could be a mean of 15 and up to 577 deaths, along with a mean of 18 and up to 1270 illnesses within 60 to 90 days of radiation exposure. Thousands of cancer incidences and fatalities could result. In addition, a nuclear accident at Shoreham could cause genetic diseases in future generations and serious psychological distress.

Analysis of the amounts of radiation which would be released during an accident and studies of human evacuation behavior lead to the conclusion that an Emergency Planning Zone ("EPZ") smaller than 20 miles is inadequate for the protection of the residents of Suffolk County. The traffic analyses and evacuation time estimates performed by the County's experts demonstrate that it would take as much as 14 to 30 hours to evacuate most sectors of the EPZ, particularly the more populous western sectors. Such slow evacuation times are a

result of the elongated, narrow shape of the island, a very limited number of appropriate evacuation routes, and the large numbers of voluntary evacuees who, according to studies conducted by the County and data gathered from Three Mile Island, would attempt to evacuate though not advised to do so (the so-called evacuation shadow phenomenon).

Any attempt to evacuate the western sectors of the EPZ would result in automobiles being stranded for hours in traffic queues, leaving the occupants exposed to the hazards of the radiological plume. In addition, automobiles cannot be expected to operate for such long periods without many running out of gas. Therefore, evacuation is not an acceptable protective action for most sectors of the EPZ. On the other hand, sheltering (staying indoors), the only other available protective action, would expose the residents of Suffolk County within the EPZ to unacceptable doses of radiation, resulting in thousands of increased incidences of cancer and cancer fatalities.

Any radiological emergency response plan depends upon the availability of large numbers of emergency personnel to perform a number of essential tasks. However, studies conducted for Suffolk County, and the testimony of several heads of County agencies, reveal that in the event of a radiological emergency, a significant number of emergency personnel may not report promptly, or even at all, for duty in a radiological emergency.

The reason is that they will experience a role conflict between their responsibility to the job and their responsibility to their own spouses and children. In such cases, of course, the feasibility of an effective emergency response would be undermined.

While the problems of emergency workers' role conflict are arguably capable of being dealt with, there are obstacles to emergency preparedness in Suffolk County that are in fact insurmountable. These result from the actual local conditions of Long Island and studied human behavior -- circumstances today beyond everyone's control. Because of these insurmountable obstacles, the County Executive concludes that no emergency plan can provide adequately for the protection of the public safety in the event of a nuclear accident at Shoreham. Thus, the Draft County Plan should be rejected. Furthermore, LILCO's own version of a County emergency plan, unauthorized by the County, is grossly deficient. That document entirely ignores local needs and conditions and should be categorically dismissed. The fundamental finding must be that, because of the inherent conditions on Long Island, there can be no preparedness adequate to protect the public safety in the event of a serious accident at Shoreham.

III. BACKGROUND

In September of 1981, Suffolk County agreed to LILCO's request that the County develop a radiological emergency response plan (RERP) in anticipation of an accident at Shoreham. Such a plan -- properly implemented by local governmental authorities -- is required before a utility can obtain an operating license from the United States Nuclear Regulatory Commission. The County assigned the task of developing the RERP to its Planning Department, which designated two of its staff persons for that purpose.

By the end of 1981, it became apparent to officials in both the Legislative and Executive branches of the Suffolk County Government that the plan was not being developed in a realistic manner. Further inquiry proved the planning effort to be deficient in many respects. In particular, the work up to that time: (1) ignored the unique configuration of Long Island and the problems it posed for an orderly evacuation; (2) largely overlooked the problems resulting from the limited roadway network available to Suffolk County residents for evacuation; (3) failed to analyse the health consequences to Suffolk County residents if evacuation and/or protective sheltering were instituted as protective actions to respond to a radiological emergency at Shoreham; (4) failed to account for the lessons learned during the accident at Three Mile Island

(especially the human behavior exhibited during that emergency); (5) relied unrealistically on the willingness of all necessary emergency response personnel to report promptly for emergency response duties; and (6) ignored the dilemma faced by those residing on the eastern end of Long Island who could be trapped by a radioactive plume traversing the Island. Moreover, the dimensions of the emergency planning zone were not based on an analysis of the specific fission products that could be released from Shoreham and the consequent health effects to the public of such releases. In short, the plan being prepared in late 1981 and early 1982 was largely a paper exercise that ignored human behavior and the conditions existing on Long Island and thus was inadequate for the purpose of protecting the public from an accident at Shoreham.

Recognizing its duty to correct the deficiencies in the County's planning efforts, the Suffolk County Legislature on March 23, 1982 adopted Resolution No. 262-1982 which ceased the planning effort then underway, returned to LILCO all money paid under the September 1981 agreement, and undertook to develop at the County's own expense a RERP that would be sensitive to the local conditions on Long Island. Recognizing also the County's duty as the protector of the public health, welfare and safety in Suffolk County, Resolution No. 262-1982 further required legislative approval prior to implementation of the RERP or its submittal to federal authorities for review:

RESOLVED, that said plan shall not be operable and shall not be deemed adequate and capable of being implemented until such time as it is approved by the Suffolk County Legislature; and

RESOLVED, that only after said plan is approved by the Suffolk County Legislature, shall it be submitted to the Federal Emergency Agency and the Nuclear Regulatory Commission for purposes of any findings, determinations, rulings, reviews, or hearings by such Federal agencies.

A sum of \$375,000 was initially appropriated for plan development, which was subsequently augmented by further appropriations now totaling well over \$500,000.

County Executive Peter F. Cohalan signed Resolution No. 262-1982 on March 25, 1982 and four days later, by Executive Order, established a Steering Committee consisting of both County personnel and outside experts to oversee the plan's development. The Committee, chaired by Deputy County Executive Frank R. Jones, proceeded to gather a team of nationally-recognized experts including:

Fred Finlayson, Ph.D., of Finlayson and Associates, an expert in the consequences of radiological accidents;

Edward P. Radford, M.D., Professor of Environmental Epidemiology, University of Pittsburgh and former Chairman of the Committee on Biological Effects of Ionizing Radiation of the National Academy of Sciences;

Philip B. Herr, Professor of Planning at MIT;

Kai T. Erikson, Ph.D., Professor of Sociology, Yale University;

James H. Johnson, Ph.D., Assistant Professor of Geography, UCLA;

Donald J. Zeigler, Ph.D., Assistant Professor of Geography, Old Dominion University;

PRC Voorhees of McLean, Virginia, a firm specializing in traffic planning;

Robert J. Budnitz, Ph.D., of Future Resources Associates, Inc., an expert on the assessment of risks and accident probabilities at nuclear power plants;

Stephen Cole, Ph.D., Professor of Sociology, Stony Brook.

The Steering Committee and its experts began work on the RERP in mid-April under a demanding schedule and a mandate to be sensitive to human behavior and to confront the specific problems of developing a plan for Suffolk County. County Executive Cohalan explained the County's commitment in testimony before the Suffolk County Legislature on May 18, 1982:

The County is engaged in a good faith effort to produce the best possible emergency plan and preparedness for the people of Suffolk County. This effort begins with the fundamental premise that the purpose of the emergency plan is to protect the people who would be affected by an accident at the Shoreham plant. To do this, there must be a meaningful, workable plan that addresses the realities of the particular conditions on the island. The analysis and planning must consider the particular types of accidents that could occur at Shoreham; the potential consequences of those accidents; the dispersion of radioactive releases on Long Island; the population -- that is, the

concentrations of people -- affected by such dispersion of radioactivity; the potential health effects to those people; the social and psychological profile of Long Island; and finally, the types of actions necessary to protect the people who would be affected by the radioactive releases.

In carrying out these analyses and related planning, the County's consultants have been instructed to emphasize practical considerations. Accordingly, they will apply the lessons of Three Mile Island and the studies which followed that accident. They will also pay particular attention to any problems associated with the east end of Long Island, including possible difficulties in evacuating persons living in east end communities.

The work of the experts, described more fully below, resulted in a plan comprised of three large volumes. County Executive Cohalan submitted the plan to the Legislature for review on December 2, 1982. For eight days, beginning on January 17, 1983 and ending on January 27, 1983, the Legislature held hearings on the plan, as required by Resolution No. 456-1982 (May 19, 1982). During that time, it heard testimony from County agencies and from witnesses put forth by both the County and LILCO. In addition, three days of the testimony were devoted to hearing from the public, both in Riverhead and Hauppauge, and from concerned citizens groups, both pro- and anti-Shoreham. The sentiment of the public was overwhelmingly against the operation of the Shoreham plant and was highly skeptical of the feasibility of any effective evacuation from the island. At the conclusion of the hearings, the record

consisted of 1,590 pages of transcript and hundreds of pages of supplemental documents.

IV. LILCO'S UNAUTHORIZED RERP

The Draft County plan submitted by County Executive Cohalan to the Legislature on December 2, 1982, is not the only document which has been proffered as the County's RERP. Rather, despite the formation of the Steering Committee and the efforts of County experts to develop a RERP, LILCO -- without County approval or authorization -- packaged and submitted to the New York State Disaster Preparedness Commission (DPC), on May 10, 1982, a document purporting to be the local RERP for Suffolk County. The document was contained in two blue loose-leaf binders entitled "Suffolk County Radiological Emergency Response Plan." It consisted mostly of materials developed earlier by the County's two Planning Department staff members whose work had been discarded by Resolution No. 262-1982, supported by other materials which LILCO and its own contractors had prepared. Not only was the LILCO-submitted document sent to the DPC without any authorization from the County but, being based largely on the County's previously discarded work, it also failed to address the essential issues presented by local conditions on Long Island.

In a mailgram dated May 14, 1982, County Executive Cohalan informed Governor Carey and William Hennessey, Chairman of the

DPC, that LILCO had no right or power to speak for the citizens of Suffolk County, that the County had not authorized LILCO to submit any document on the County's behalf, and asked the Commission not to review the unauthorized LILCO document. The mailgram concluded by reiterating the County's commitment to providing the greatest protection of the public:

[The] Suffolk County Government is engaged in a serious good faith effort to prepare the best possible emergency plan to protect the public's safety. We trust that State officials will not permit themselves to be used by LILCO as pawns in LILCO's arrogant end run to the State around the critical interests of the people of Suffolk County. We therefore ask that the State promptly reject LILCO's inappropriate request.

In testimony before the Suffolk County Legislature on May 18, 1982, County Executive Cohalan expressed the concern of the Suffolk County government that LILCO was attempting to usurp the County's responsibilities as the protector of the public welfare:

The power to act for the people of Suffolk County is by law vested only in the County government. LILCO, by its presumptuous recent actions, has arrogated to itself that governmental power. This fact was confirmed in last Friday's newspaper, where a high-level LILCO official justified his company's action with the following quoted words: "When government refuses to act responsibly, as a government, then we must do so for the government." LILCO's far-fetched words, which would justify the usurpation of governmental authority by a private corporation, are nothing less than preposterous. These words -- which with little imagination smack of a vigilante spirit -- evidence a corporate belligerency

in LILCO which demeans the public purpose for which this County government exists. Promptly, LILCO should retract its unfitting words. They are not only in bad taste; they are nonsensical.

Attempting to convince LILCO of the County's good faith efforts in emergency planning, Chief Deputy County Executive John C. Gallagher wrote the following in a letter dated May 17, 1982 to Dr. Matthew Cordaro, a vice president of LILCO:

The County's emergency planning effort is being performed by a team of nationally recognized experts. A list of these experts is enclosed herewith for your information. The County Executive has informed these experts that Suffolk County wishes to develop the best possible emergency plan to protect the health and safety of the residents of Suffolk County. Needless to say, a meaningful, workable radiological emergency plan would also be in LILCO's best interests.

* * *

It is the County's hope that LILCO will promptly terminate its resistance to the County's good faith emergency planning efforts. An increasing amount of the County's time is being consumed by the need to respond to seemingly belligerent actions of LILCO that challenge the County's current effort. I ask that you convey to your colleagues these serious sentiments, and that LILCO refrain from escalating further with rhetoric or deed any difference which exists between LILCO and the County with respect to the critical goal of effective radiological emergency preparedness.

The County Legislature also protested against LILCO's attempted usurpation of the County's duty to provide for the health, welfare, and safety of its citizens. By Resolution No.

456-1982 (May 18, 1982), the County Legislature reaffirmed its "primary responsibility for the protection of its residents in the event of a radiological emergency at [Shoreham]" and its serious intention "through good faith and sound planning efforts, to assure that the best possible emergency plan and preparedness are developed to protect the citizens of Suffolk County." Similarly, Resolution 457-1982, passed the same day, also recognized the County's "sworn duty to protect the health and safety of the people of Suffolk County," for which it "has commissioned studies to determine all planning facets that are essential in developing a viable [RERP]." Both resolutions condemned LILCO for submitting to the DPC an unauthorized RERP purporting to be for Suffolk County and reiterated that the only RERP that would be implemented in Suffolk County would be one adopted by the Legislature. Resolution 457-1982 further served to inform the Governor, the State Legislature, and the DPC that the County vehemently opposed any action by the State which gave credibility or dignity to LILCO's unauthorized document.

Notwithstanding the County's attempts to explain its position and its protests against any usurpation of its authority, LILCO continued to press for review of its unauthorized RERP by the DPC staff. The DPC staff complied with LILCO's wishes but its review resulted on June 9, 1982 in the determination that LILCO's plan was deficient in numerous areas and thus was "unsatisfactory for submission to the full Commission."

Meanwhile, the County's Steering Committee and its experts continued to develop a County RERP. However, on October 6, 1982, LILCO submitted an amended version of its unauthorized RERP to the DPC, claiming to have corrected the deficiencies found earlier by the Commission's staff. The letter accompanying LILCO's submittal conceded that:

"...neither our original plan which we submitted on May 10, 1982, or this revised plan, has been approved by Suffolk County. We note that no direct contact was made with Suffolk County personnel regarding any of the changes contained in the enclosures."

Again, the unauthorized RERP failed to address the crucial problems being faced by the County's planners.

Mr. Hennessey advised the County by letter of November 12, 1982 that he would request the DPC to review the LILCO RERP. In reply, Deputy Suffolk County Executive Frank R. Jones informed Mr. Hennessey by letter of November 22, 1982 that LILCO's RERP for Suffolk County was without County approval, that "LILCO's document is not and never will be the local [RERP] for Shoreham," and urged the DPC not to review the document, particularly in light of the fact that release of the Draft County plan was imminent. Again ignoring the County's protests, Mr. Hennessey replied by letter on November 29, 1982 that the DPC intended to hold a meeting on December 8, 1982, to consider the LILCO document and invited the County to attend.

The County Executive submitted the County's RERP to the Suffolk County Legislature for its review on December 2, 1982. A copy of the County RERP was sent the same day to Mr. Hennessey and the DPC for informational purposes. In spite of the existence of the County's draft RERP, Mr. Hennessey informed Deputy County Executive Frank R. Jones the next day in a telephone conversation that the DPC still intended to review and to approve LILCO's document at the December 8 DPC meeting. The County Executive protested the DPC's proposed actions in mailgrams sent to Mr. Hennessey and Governor Carey on December 4, 1982, informing them that the DPC had no authority to review the LILCO document and demanding that the DPC neither review nor approve that document at its December 8 meeting.

In the absence of a satisfactory response from the DPC, the County commenced legal action. On December 6, 1982, the County sought and obtained an Order to Show Cause demanding that the DPC appear to show cause why an order should not be entered pursuant to Article 78, or in the alternative by declaratory judgment and appropriate injunctive relief, on the grounds that the State had no authority to review the LILCO document. On December 7, 1982, the Supreme Court sitting in Albany County issued a Temporary Restraining Order, prohibiting any review of LILCO's plan pending a hearing on the County's request for a preliminary injunction. Finally, on December 15, 1982, the County, the DPC and LILCO entered into an agreement

by which the DPC agreed to refrain from reviewing LILCO's RERP until the County Legislature had an opportunity to review and decide upon the adequacy of the County's RERP, but in no case later than February 22, 1983.

The foregoing recital of LILCO's unauthorized and unprecedented attempts to usurp the County's authority to protect the health, welfare and safety of Suffolk County's citizens must not cloud an underlying fact. Even if the LILCO-submitted document were implemented, it would be grossly inadequate. Not only does it fail to deal with the realities of health consequences which would be suffered if an evacuation and/or protective sheltering were ordered, the LILCO document totally fails to deal with the actual local conditions which exist on Long Island. Thus, this document fails to address:

- (a) the portions of the population which must be planned for so as to prepare them for response to a radiological accident at Shoreham;
- (b) The geographical areas of Suffolk County affected directly by radiation released by a serious accident at Shoreham;
- (c) the effects of meteorological conditions and frequently changing wind direction on actions required by local government and the public to protect the affected population from adverse health consequences of radiation released by a serious accident at Shoreham;
- (d) the large number of persons who would be required to evacuate in the event of a serious accident at Shoreham;

- (e) the large number of persons who would voluntarily evacuate in the event of a serious accident at Shoreham;
- (f) the difficulty of mobilizing police and other emergency workers on a timely basis;
- (g) the number of school bus drivers and other emergency workers who have stated their intentions to unite and take protective actions with their own families rather than reporting for work in the event of a serious accident at Shoreham;
- (h) the amount of time it would realistically take to evacuate the population affected by a serious accident at Shoreham;
- (i) the effects of inevitable breakdowns and accidents of automobiles during evacuation and the effects of automobiles running out of gasoline and immobilizing evacuation routes;
- (j) the impacts of likely human behavior on the effectiveness of evacuation and protective sheltering, particularly given the actual and perceived constraints caused by the limited road network in Suffolk County;
- (k) the particular problems of persons residing in the east end of Long Island, from which evacuation would require travelling toward Shoreham and into areas of traffic congestion and highest potential radiation concentration;
- (l) other local conditions and effects addressed by the analyses, studies, and surveys performed by the County's expert consultants and others who presented statements and testimony at the Legislature's public hearings.

In short, LILCO's unauthorized "plan" is merely paper which even if implemented could never provide any preparedness to protect the health, welfare and safety of Suffolk County's citizens.

v. THE DRAFT SUFFOLK COUNTY RADIOLOGICAL EMERGENCY RESPONSE PLAN

The Draft RERP submitted by the County Executive to the Legislature on December 2, 1982 represents approximately seven months of work by the County's team of experts. It consists of three large volumes totaling approximately 777 pages. The Draft RERP is the best plan that could be developed for Long Island, but the key question is whether, given the unique circumstances on Long Island, the best is good enough. As Mr. Philip Herr, a member of the Steering Committee and Professor of Planning at MIT told the Legislature:

I am satisfied that the County in fact engaged impeccably qualified advisors, that those advisors were given free rein to reach their own conclusions and that a sound and thorough job has been done in bringing the plan to this point. I am satisfied that the response plan is just about as good as could be devised for this circumstance, and that the consequence estimates are fully supportable by scientific analysis.

Even though the plan is about as good as can be achieved, the outcomes may be unsatisfactory to some of you. The risk is not and could not be reduced to zero. In the event of a severe plant accident, there are likely to be substantial public health consequences, not because of any emergency plan failure, but because that plant at that location makes those consequences essentially unavoidable.

Deciding whether or not those consequences are acceptably remote and small in relation to other considerations is not our charge. Rather, we want only to make clear what the consequences resulting from an accident might be given implementation of the best plan we can devise.

The following is a review of the plan's major features. This review demonstrates that the Draft County RERP, while conscientiously prepared, cannot protect the public health, safety and welfare in the event of a severe accident at Shoreham.

A. The Emergency Planning Zone (EPZ)

The EPZ developed by the County's experts relies largely upon the consequence analysis performed by Dr. Finlayson, the health effects expertise of Dr. Radford, and the need to accommodate the evacuation shadow phenomenon studied by Drs. Johnson, Feigler and Cole (see below). The EPZ consists of an area approximately 20 miles in radius from the Shoreham plant, divided into 7 sectors. See Herr, Discussion Overview (RERP, Vol. I) at 4. The first sector is the so-called "inner sector" which is an area approximately five to seven miles in radius from the Shoreham plant. The remaining six sectors are approximately 30 degree segments that radiate from the outer boundary of the inner sector to the outer boundary of the EPZ.

With respect to radiation doses and the health effects of such doses, the characteristics of the EPZ were developed according to the following criteria. It was the overall objective of the planning effort to limit doses to the population as much as possible. For very serious accidents, the first priority was to prevent the public from receiving

life-threatening doses. In the case of less severe accidents, the goal was to limit doses below those that would cause early injuries (vomiting, fatigue, etc.). RERP, Vol. II, Document 2 (Finlayson and Radford, Basis For Selection of Emergency Planning Zones for the Shoreham Nuclear Power Plant)[hereinafter (Finlayson and Radford)] at 47; Tr. 1131, 1185.

The 20-mile outer limit of the EPZ seeks to meet both of these criteria. Two hundred rems to the whole body is the level at which early deaths (those occurring within several weeks of exposure) occur. As the EPZ is presently structured, during severe accidents the chance of receiving such a potentially fatal dose of radiation outside of the EPZ (i.e. beyond 20 miles) is very small. Id. at 48; Tr. 1132. Thirty rems to the whole body represents the point at which detectable physical damage can occur. Tr., Jan. 27, 1983, Attachment A at 4.^{1/} In the case of a less severe core melt accident, there is no more than a 1 percent chance of receiving more than 30 rems outside of the EPZ. Finlayson and Radford at 48; Tr. 1131. Thus, the 20 mile EPZ is required to provide protective actions for those actually in danger of suffering early injuries or fatalities in the event of an accident at Shoreham.

^{1/} In addition to oral testimony, the Legislature received written statements from most of the witnesses who appeared before it. In most cases, those statements were included in the transcripts of the hearing as attachments. Statements bound into the transcripts will be cited by transcript date and alphabetical designation (Attachment A, Attachment B, etc.).

The existence of the inner zone reflects the fact that those closest to the plant are in the greatest danger. The time allowed for people to take protective action within this zone will be relatively brief because the wind (which would carry radioactive particles during a severe accident) often blows at a speed of ten miles per hour or more in the Shoreham vicinity and shifts direction frequently. Thus, if evacuation was deemed necessary, the entire inner zone would always be evacuated to ensure that wind shifts would not catch part of the population within the inner zone unprepared. Id. at 50.

The six sectors between the inner sector and the outer boundary of the EPZ provide flexibility in the emergency response. Since a plume of fission products released from the Shoreham plant would follow the direction of the wind, protective actions would be recommended for the sector along which the wind was traveling, as well as both adjacent sectors. Id. at 50. The other sectors, whose population would be in no immediate danger, would not be ordered to take protective actions such as evacuation or sheltering (but note the problems of the evacuation shadow phenomenon described below).

It is important to note, however, that the development of the EPZ and protective actions within the EPZ do not guarantee freedom from risk. Tr. 1135. Dr. Finlayson's consequence analysis determined that even where protective actions are taken, the more probable of the severe core melt accidents could

cause a maximum of 577 early fatalities within the EPZ with a mean number of 15.2. The same accident could cause a maximum of 1,270 early injuries within the EPZ with a mean of 18. Failure to take protective actions would increase those numbers substantially. Finlayson and Radford at 35.2/

Cancer fatalities would also occur within the EPZ, ranging from a few to over 1,700, depending upon delay time (time between public notice of accident and taking of protective action) and evacuation speed. Id. at Table 8. It is also interesting to note that most fatal cancers, up to 7,000, will occur outside the EPZ, whether protective actions are taken or not. Id.

B. The Inadequacy of a 10-Mile EPZ.

LILCO, in its testimony before the Legislature on January 18, 1983, was critical of the dimensions of the County's EPZ, urging that the County adopt an EPZ of only 10 miles in radius, such as presented in LILCO's unauthorized submittals to the DPC. LILCO prepared statement at 33-41; 3/ Tr. 175-177. However,

2/ In contrast, compare the results of a study conducted by Sandia National Laboratories (Technical Guidance for Siting Criteria Development, NUREG/CR-2239, SAND81-1549) which concluded that a "worst case" accident at Shoreham would result in 40,000 early deaths, 75,000 early injuries and 35,000 cancer fatalities.

3/ As part of its presentation to the Legislature, LILCO submitted an 85-page document explaining its position on emergency planning into the record. That document, though not included in a transcript, became part of the hearing record. It will be cited as "LILCO's prepared statement."

LILCO's criticism appears to be based in large part on a lack of understanding of the risk criteria by which the County derived the EPZ.

In criticizing the 20-mile zone, LILCO stated that:

The County consultants used 200 rems as the dose above which early deaths from radiation can occur. They then chose a 1% conditional probability as their criterion and found that, according to the plot, the chance of receiving 200 rems would be only 1 in 100, even assuming a core-melt accident occurs. This analysis produced the 5-7 mile "inner ring."

This "inner ring," it is important to recognize, corresponds in concept to the Federal government's 10-mile EPZ. The reason the former is 5-7 miles in radius while the latter is 10 miles is that the calculated results of accidents at the Shoreham plant are less severe than the results calculated in NUREG-0396. In other words, had the County planners used the same risk criterion that the Federal government used, but with the Shoreham-specific draft PRA, they would have come up with an emergency planning zone of substantially less than the 10-mile EPZ required by the Federal government.

[Emphasis added.]

LILCO prepared statement at 39. As is clear from this explanation of the County's EPZ criteria, LILCO has misunderstood the use of the 200 rem dose level. Contrary to LILCO's characterization, the inner sector was not based on any dose level at all, but rather was an attempt to identify an area where rapid protective responses were most essential, due to its proximity to the plant. Actually, the 200 rem dose level

for the most severe core melt accidents was one of the criteria for establishing the outer edge of the EPZ, not the 5-7 mile inner sector. LILCO's misunderstanding of these essential factors led it to conclude erroneously that the 5-7 mile zone "corresponds in concept" to a 10-mile EPZ, which it clearly does not.

More importantly, however, LILCO's above testimony asserts that if the County's planners had used federal risk criteria, the EPZ they would have calculated would be less than 10 miles. Again, LILCO's assertion is inaccurate. Federal risk criteria as set forth in NUREG 0654 provide that projected doses beyond the EPZ should be below the EPA's Protective Action Guide (PAG) levels. See NUREG 0654 at 12. The upper bound of the PAG levels is 5 rems to the whole body. If the County planners had rigidly adhered to those guidelines and set the EPZ at a point where there was less than a 1 percent chance of exceeding 5 rems, the EPZ would have been approximately 60 miles in radius, not less than 10 miles. See Finlayson and Radford, Figure 12. 4/

4/ LILCO also testified that the County's experts failed to account for the lower potential dose levels caused by the "scrubbing action" of Shoreham's suppression pool (a feature of boiling water reactors) and by the interaction of fission products with other elements. LILCO prepared testimony at 42-52; Tr. 253. However, as Dr. Finlayson testified, both factors were accounted for in the County's analyses. Tr. 1144. Indeed, it should be borne in mind that the fission product release values used by the County's experts are precisely those that were derived by LILCO's own consultant, Science Applications, Inc.

It is evident from the County's analyses that nothing less than a 20 mile EPZ will offer adequate protection to the public. The consequences of an EPZ less than 20 miles are too severe to justify a smaller EPZ such as LILCO suggests. As Dr. Finlayson testified, if the County were to adopt a 10 mile EPZ, in a severe accident there would be a 35 percent chance of receiving 200 rems (enough to cause early fatalities) and a 60 percent chance of receiving 30 rems outside the EPZ. Tr. 1142; see also Finlayson and Radford, Figure 11. Even in a less severe core melt accident, a 10 mile EPZ would provide a 50 percent chance of receiving 10 rems and a 20 percent chance of receiving 30 rems. See Finlayson and Radford, Figure 12. Clearly, those risks are unacceptable. Therefore, a 10-mile EPZ, and indeed anything less than a 20-mile EPZ, would be ill-advised.

If any adjustments should be made to the EPZ, they should be directed outward. Tr. 15; see also Tr. 1459. Such an outward adjustment, however, would significantly increase the complexity and costs of planning for a radiological emergency. As Mr. Herr testified:

Stated another way, the EPZ is sized so that in the event of a core-melt accident, early fatalities will not occur outside of it, exposure high enough to make detectable blood changes has only a one percent chance of happening inside of it, and the EPA protective action threshold has a 50-50 chance of being exceeded.

No smaller EPZ would allow that level of safety outside of the zone. A 10-mile EPZ, for example, would place a large number of persons at substantial risk outside of the EPZ.

A larger EPZ would be feasible but at the price of added complexity and cost to a variety of local agencies such as the schools. [Emphasis added]

Tr. 15.

C. Sociological and Psychological Issues In Emergency Planning

1. Overreaction and the Evacuation Shadow Phenomenon

One of the key issues confronting the County's planners, which generated a significant amount of discussion during the Legislative hearings, was the question of how people will behave during a radiological emergency. It was an issue which placed the witnesses proffered by LILCO in clear disagreement with the County's experts.

LILCO asserted in both its written submission to the Legislature and during the actual testimony of its experts that human behavior does not vary between different types of disasters. Based on research of disasters such as floods, hurricanes and chemical spills, LILCO's experts testified that people experiencing a radiological emergency will tend to react calmly and follow authoritative orders. LILCO prepared statement at 63-65, 84; Tr. 345-366. Therefore, they conclude, a radiological emergency response plan need not take into

account any potential overreaction or disobedience to instructions. Tr. 346-347.

The County's experts, however, take a different approach, supported by their studies of TMI, the disaster related literature, and the actual studies which have been performed on Long Island. The testimony of Dr. Susan Saegert, Professor of Environmental Psychology at City University of New York, was typical of the County experts' unanimous position on the issue:

Well, I think that the message that I think would be clearest in psychological literature is that there are aspects of nuclear hazards which make them different in people's perceptions than other kinds of hazards and these include the more involuntary, more dreaded, . . . more feared, perceived as being out of control, perceived as being unknown both by lay people and by scientists, and perceived as being hard to locate both [onsite and offsite].

These characteristics make it more likely that people will overreact to a threat.

Tr. 1121-1122. As Dr. Johnson of UCLA and Dr. Zeigler of Old Dominion University testified, radiation is undetectable by human senses. As such, it causes a greater fear in people, born out of uncertainty, causing them to overestimate the danger of a nuclear accident and thus to overreact. Tr. 1035, 1117, Attachment B at 1; see also, testimony of Dr. Erikson, Tr. 1047.

The conclusions drawn by Drs. Johnson and Zeigler are not based on speculation, but on their detailed studies of human

behavior both at Three Mile Island on Long Island. At Three Mile Island, the Governor of Pennsylvania issued an advisory that pregnant women and pre-school aged children within 5 miles of the plant should evacuate. An estimated 2,500 persons within the five mile area around TMI fit that category; however, the studies of Drs. Johnson and Zeigler, as well as two other studies (Tr. 1100), revealed that over 144,000 persons living as far as 15 miles from the plant in fact evacuated. Tr. 1037, 1099; see also testimony of Dr. Stanislav Kasl, Tr. 1399. This tendency for persons in a radiological emergency to evacuate in great numbers, though not advised to do so, has been labeled the "evacuation shadow phenomenon."

Mindful of this occurrence at TMI, the Steering Committee commissioned a study to investigate whether such behavior might occur on Long Island in the event of an accident at Shoreham. The study, conducted primarily by Drs. Johnson, Erikson, Zeigler, and Cole, consisted of a random sample telephone survey of more than 2,500 Long Island residents. Dr. Cole's research firm, Social Data Analysts, administered the survey, the results of which are contained in Documents 4 and 5 of Volume III of the County's RERP. The focus of the study was upon three nuclear accident scenarios posed to each interviewee. In Scenario One, each interviewee was asked what he or she would do if there was an official advisory that persons within a 5 mile radius of the plant should stay

indoors. No one was advised to evacuate. The responses of the interviewees indicated that 215,000 families, or about one quarter of the population of Long Island, would attempt to evacuate. Tr. 1040.

Scenario Two was patterned after the TMI accident where a partial evacuation out to 5 miles from the plant was advised. While such an advisory would cover only 2,700 families in Suffolk County, responses indicated that 289,000 families would attempt to evacuate. Tr. 1041.

In Scenario Three, an evacuation was ordered out to 10 miles from Shoreham. Thirty-one thousand families live within that area, but the survey discovered that 430,000 families -- about half the population of Long Island -- intended to leave their homes in such a case. Tr. 1041. .

A tendency to evacuate voluntarily in such large numbers has obvious and severe implications for emergency planning which, contrary to the conclusory approach of LILCO's experts and its unauthorized RERP, cannot be ignored. Dr. Johnson summarized those implications and their consideration by the County's experts in contributing to the definition of defining the County's 20 mile EPZ as follows:

I think generally any definition of a ten-mile EPZ ignores what we have defined as the evacuation shadow phenomenon, that is, the tendency for people beyond a designated danger zone to overreact and spontaneously evacuate.

Now the significance of this evacuation shadow phenomenon is that you're going to have all of those people on the evacuation routes as well as the people from within the designated danger zone, and the traffic beyond the ten-mile EPZ . . . could slow or hinder the evacuation from the designated danger zone.

Our purpose in redefining the EPZ for twenty miles is to accommodate the evacuation shadow phenomenon because we acknowledge or realize that that traffic is going to have some effect on evacuating the designated zone, however it's defined.

Tr. 1071-1072.

In short, if people beyond 10 miles from the plant are going to evacuate in great numbers, there must be an EPZ proportionately much larger than that in order to provide police traffic control and other pre-planned measures designed to expedite the anticipated traffic flow as much as possible. The 20 mile EPZ thus is based not only on the anticipated doses of radiation that can be expected in a radiological emergency, but also recognizes the need to plan for the evacuation shadow phenomenon.

2. Mississauga

In order to buttress its argument that people will behave calmly and rationally during a radiological emergency, LILCO offered the example of a train accident in Mississauga, Ontario, which caused chlorine gas to escape into the atmosphere. As a result, there was a successful evacuation of over 200,000 people from a 116 square kilometer area over the course of 24

hours. LILCO prepared statement at 65-70. Relying on the experience at Mississauga, LILCO urges that an evacuation in the event of a radiological emergency would be no more difficult. Id.

The County's experts concluded, that Mississauga is not an appropriate example from which to draw lessons relevant to a radiological emergency. Dr. Erikson explained that position in his testimony at Tr. 1048-1050:

Now, there are those who cite the evacuation of a place called Mississauga in Ontario, Canada, as an indication that a large scale evacuation can be carried out in a successful manner, but I think it's very important that one understands what happened there, because I am not at all sure it makes sense to take much comfort from it.

In the first place, the emergency of Mississauga was created by chlorine gas, which has an exceptionally sharp smell, rather than radiation which has no smell at all. And being aware of that difference, both the Mayor of Mississauga and the Emergency Planning Coordinator of the Province of Ontario, have publicly and specifically warned that it would be very foolish to generalize from that experience to one in which radiation was a potential problem.

Second, the emergency at Mississauga began with an explosion in the middle of a Saturday night, and the evacuation began at 4 o'clock on a Sunday morning when all of the schools, and I presume most of the stores, and most of the places of business were closed. So that virtually everybody in Mississauga was home; virtually every family in Mississauga had been -- already had been assembled, and the Mayor of Mississauga, again, would share with most

people who had thought seriously about this, it's foolish to assume that the outcome of an emergency that operated on such favorable conditions can be generalized to someplace like Suffolk County, where conditions are worse.

Third, the Mississagua evacuation was phased over a relatively relaxed period of 20 hours or even more, and that's a luxury that one dare not assume that one would have in the event of a potential -- future accident involving radiation. The people of Mississagua, during the whole of that evacuation, had no reason to suppose that they were in grave danger at the moment. (Emphasis added).

Thus, he concluded, Suffolk County would be better served by heeding the studies done in Suffolk County pertaining to a radiological emergency, rather than the experience of Mississagua, the relevance of which is dubious to radiological emergency response planning on Long Island. Tr. 1050; see also Tr. 1064-1066.

3. Role Conflict

As discussed earlier, Suffolk County also was concerned with the issue of whether emergency personnel with families would be available for duty during a radiological emergency in which such personnel would have two conflicting duties, one to their job and the other to their families. Tr. 1067. The problem is known in sociological terms as "role conflict." Each duty is equally noble, but many workers would be expected to resolve the conflict in favor of their families, particularly in a radiological emergency where the danger is not easily detectable and therefore more feared. Tr. 1048.

Drs. Erikson and Cole performed two surveys to determine to what extent, if any, the problem of role conflict might hamper the County's response to a radiological emergency. The first survey studied the attitudes of school bus drivers in Suffolk County, who would have a major role in evacuating school children and others from the EPZ. The second survey studied role conflict among volunteer firemen serving fire districts close to the Shoreham plant. During a radiological emergency, volunteer firemen would also be expected to perform various evacuation duties.

The details of the role conflict studies are contained in Volume III, Document 6 ("Responses of Emergency Personnel To A Possible Accident At The Shoreham Plant"). They reveal that 68 percent of the firemen surveyed indicated they would first care for the safety of their families and therefore would not be available for immediate emergency duty. About 36 percent indicated they would not be available at all. Tr., Jan. 24, 1983, Attachment C at 6. With respect to school bus drivers, 69 percent indicated that they would not report to duty until they were certain that their families were safe. Tr., Jan. 24, 1983, Attachment C at 7.

Highlighting the implications of these results for radiological emergency planning, Dr. Erikson concluded:

These are striking and important findings. They indicate in the sharpest way that it is reckless to assume that emergency personnel can be counted on to

report to duty in a Shoreham emergency without assurances that their families are safe. Nor should we be surprised, for, if social and behavioral scientists know anything, it is that people instinctively turn first to the needs of their own offspring.

Tr., Jan. 24, 1983, Attachment C at 7.

LILCO, preferring to refer to the problem as "role strain," testified that in all other emergencies, personnel performed adequately and that therefore they could be expected to do so in a radiological emergency. LILCO prepared statement at 70-79; Tr. 179-180. That position, however, ignores the findings of the County's experts that a radiological emergency is not like other emergencies due to its undetectable nature. See, e.g., Tr. 1048. Moreover, the presence of a potential role conflict problem among Suffolk County emergency personnel was confirmed by the testimony of the Commissioner of the Suffolk County Police Department, and the Commissioners of Health, Social Services and Public Works, all of whom expressed misgivings about the availability of their personnel during a radiological emergency. Tr. 1210, 1285, 1290, 1292; Suffolk County Police Department prepared statement [hereinafter SCPD statement] at 11-12. As Commissioner Dilworth of the Suffolk County Police Department testified:

Look, those who are at home or off duty, and the great proportion of our personnel within the EPZ, we would certainly see some role conflict. It is our opinion that their conflict would be a moral responsibility to their public duties and their family duties, and they would first provide for their families.

Tr. 1220.

Quite obviously, role conflict is a problem which exists and must be resolved in order to have an effective emergency response. Until the problem is resolved, any attempt to implement a plan without an assurance of adequate emergency personnel would threaten the safety of Suffolk County's residents.

4. Other Social and Psychological Issues

In addition to the problems of the evacuation shadow phenomenon and role conflict noted above, Professor Saegert of the City University of New York noted other important problems in planning for a radiological emergency. For instance, stressful situations might arise during an evacuation in Suffolk County which could lead to aberrant, violent or irrational behavior that could hamper an effective response:

The other problem that I think should be emphasized is the difficulty that this particular site presents for coordinating an evacuation to the person who's faced with trying to decide what to do. The [lack] of alternative routes, possible perceived time pressure, the possibility of choosing a route and finding it to be unsuccessful, choosing another route and finding it to be unsuccessful, are the kinds of things that can change the intent to evacuate in an orderly fashion into an irrational kind of behavior.

Tr. 1122-1123. Concerns about disorderly behavior were also raised by the Suffolk County Police Department. Tr. 1212; 1228-1229; 1248; see also SCPD statement at 32.

In addition, while it has been suggested that public education about radiation and radiological emergencies might reduce disobedience to orders from public officials or police, studies indicate that public education may, in fact, heighten confusion and fear about radiological accidents and cause an increase in undesirable behavior. Tr. 1091. Accordingly, it is not clear that the difficult issues surrounding preparedness for Shoreham -- evacuation shadow, role conflict, and the others -- are amenable to resolution by education even with a total commitment of County resources.

Finally, Professor Saegert urged that the County should be aware of and concerned with the problems of long term stress which is still being exhibited by inhabitants around Three Mile Island. Tr. 1069-1070.

5. The Value of Surveys

As discussed above, some of the conclusions drawn by the County's experts about human behavior derive from scientific studies of Suffolk County's residents and emergency personnel. LILCO has attacked the County's studies as irrelevant, taking the position that surveys cannot adequately predict future human behavior. LILCO prepared statement at 80-81; Tr. 179. In essence, LILCO urges that the County should focus upon human behavior in other, non-nuclear, disasters and ignore the information offered by its own residents.

However, as Dr. Cole testified, surveys which are properly conducted 5/ can be highly accurate indicators of future human behavior and, in fact, are used constantly by corporations and governments in decisionmaking. Tr. 1058-1060. In fact, Dr. Cole has conducted two telephone surveys for LILCO. Tr. 1114-1115.

Speaking on the issue of the accuracy of surveys, Dr. Erikson reminded the Legislators that the surveys conducted on Long Island represent "the only relevant information available to us ... and to say those findings are unreliable is to say that the people who live in this community cannot be trusted to know their own minds." Tr. 1052. Further evidence of the accuracy of the surveys is shown by the fact that the results of the social survey conducted by the County's experts closely

5/ As Dr. Cole testified, the results of the surveys he conducted for Suffolk County are highly reliable:

Of all of the surveys I have done; all 150 or so that I have done, not one was done to more reigorous or higher professional standards than the surveys which I conducted for Suffolk County.

Tr. 1054.

The unusually large sample (2595 persons) interviewed for the social survey gave it a sampling error of only three percentage points. Tr. 1055. The emergency personnel survey interviewed almost all of two specific sets of emergency workers and thus did not have a sampling error. Tr. 1059-1058. In addition, the surveys were extensively pre-tested and administered by trained interviewers. Tr. 1056-1057.

matched the actual behavior recorded at TMI. Tr. 1116. In light of this evidence, the County is satisfied that the surveys it commissioned were useful tools in the development of its RERP.

D. Evacuation Routes And Time Estimates

Perhaps the most perplexing issue in developing the County's RERP was the problem of how to move large numbers of people out of the EPZ and beyond on a limited number of roads running through a narrow island. In his testimony, Police Commissioner Dilworth posed the problem starkly:

Our job will be made difficult by the elongated, narrow shape of the island and its large population which is spread amongst a limited network of roadways. The location of the Shoreham plant, immediately adjacent to the Long Island Sound, prevents 360° dispersal of evacuating traffic. In short, the Police Department and emergency planners are confronted with having to move a large population through a small corridor.

Tr. 1207-1208.

The County hired the firm of PRC Voorhees to analyze Suffolk County's road system and to estimate the time required to evacuate the various segments of the EPZ. The results, compiled in the County's RERP at Volume II, Document 1 (Preliminary Evacuation Time Estimates For The Shoreham EPZ)[hereinafter Time Estimates] provide a dim view of the prospects for rapid evacuation of County residents.

The EPZ is served by only four major evacuation routes running in an east-west direction (the Long Island Expressway, Sunrise Highway, Jericho Turnpike and Northern State Parkway), and a few additional minor routes. Time Estimates at 25. Only three routes have limited access. Id. at 6.

Given this limited network and the elongated shape of Long Island, the time estimates developed by Voorhees' computerized traffic model are in most cases extremely high. They are summarized in Table 10 of the Time Estimates, which is reproduced on the following page. As the table indicates, the evacuation time estimates for evacuation of the inner and eastern sectors of the EPZ are relatively low. However, an evacuation of the inner sector plus any other sectors produces evacuation times ranging from well over 10 hours to 30 hours, depending upon the specific sector and postulated road conditions. The most distressingly high time estimates, in the range of 14-30 hours, occur in the western sectors -- the most highly populated sectors.

While the PRC Voorhees traffic model took into account the numbers of cars expected to be on the road due to the evacuation shadow phenomenon (see above), it did not consider such obstacles to an evacuation as automobiles running out of gas, 6/ accidents, breakdowns and disobedience of the rules of

6/ Table 3 on page 31 of the SCPD statement depicts the amount of fuel consumed by automobiles with idling

(Footnote cont'd next page)

EVACUATION SCENARIO

Sectors Recommended For Evacuation	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
	1985 Summer Population	1985 Winter Population	1985 Winter Population (Adverse Conditions)	Restricted North & South Fork Traffic 1985 Winter Population	100% of Sectors Recommended 0% of Others 1985 Winter Population	20% Population Increase Winter Non-Adverse Conditions	Shadow Test 100% Inner + Shadow Summer (Winter)	Shadow Test 100% Inner Only 0% Others Summer (Winter)
Inner Only	4:30	3:45	5:15	3:45	4:15	4:30	5:15 (4:30)	5:00 (4:15)
Inner + Western	14:30	13:45	22:15	13:45	14:15	16:15		
Inner, Western & MSW	19:15	17:30	28:30	17:30	20:30	20:45		
Inner, Western MSW & SW	21:15	19:45	30:00	19:45	24:45	23:30		
Inner, MSW, SW & S	21:15	19:45	30:00	19:45	24:45	23:30		
Inner, SW, S & SE	17:30	10:45	17:15	9:45	12:15	12:45		
Inner, S, SE & East	15:00	10:45	17:15	9:45	12:15	12:45		
Inner, SE & East	12:30	4:30	6:45	3:45	5:00	5:00		
Inner & East	6:30	4:30	6:45	3:45	5:00	5:00		

TABLE 10. SUMMARY OF EVACUATION TIMES

the road. These are problems that could severely hamper an evacuation and thus raise evacuation times considerably or, in the case of many cars running out of gas, even immobilize an evacuation effort.^{7/} While the rapid deployment of tow trucks might be useful to clear non-functioning cars from the roads, few such trucks are at the County's disposal. The Department of Public Works has only one tow truck (Tr. 1293), while the police have four. Tr. 1226. Private tow truck operators might provide some assistance in removing non-functioning cars, but they would experience the same role conflicts as other emergency personnel and thus would not be reliable. See Tr. 1293.

(Footnote cont'd from previous page)

engines. Assuming that the average automobile has a half tank of gas, and assuming further that a small 4-cylinder automobile has a 10 gallon tank while a large 8-cylinder automobile has a 20-gallon gas tank, the information in Table 3 indicates that the average automobile would run out of gas in about 10 hours. Since the evacuation time estimates for so many of the sectors in the EPZ are above 10 hours, it can be assumed that many cars will run out of gas before the completion of an evacuation. Obviously, such an occurrence would impede or even immobilize the progress of traffic, as would accidents and breakdowns.

^{7/} Note also other problems raised by the police department that could have an adverse impact upon evacuation times including: (1) a potential loss of communications if police headquarters must be evacuated; (2) the possibility of civil disobedience; (3) uncertainty that police mobilization could be achieved before an evacuation starts; (4) traffic moving into the EPZ as families attempt to unite; and (5) potentially inadequate police resources. See generally SCPD statement.

In short, the PRC Voorhees evacuation time estimates are actually too low. Nevertheless, they make it clear that while it may be feasible to evacuate the inner sector alone or the eastern sector, it is unworkable to attempt evacuations of the other sectors, which could take as much as 30 hours or more. Tr. 1128, 1167. Thus, the only available protective action for persons in the western sectors is to take shelter in their homes. However, as will be discussed in later portions of this report, the sheltering option poses a significant danger to the public health of Suffolk County's residents.

E. Health Effects

An accident at Shoreham would have adverse effects upon the health, safety, and welfare of the residents of Suffolk County (and in some circumstances, beyond the County's borders), including short term deaths and illnesses, long term deaths and illnesses, and various psychological illnesses.

1. Short Term Health Effects

Short term (or "early") deaths and illnesses are those that would occur within 60 to 90 days after exposure. With respect to early injuries, detectable changes in the blood platelets will occur at 30 rems, while more acute effects such as nausea and fatigue could begin at approximately 50 rems of exposure. Finlayson and Radford at 17. Two hundred rems represents the lower level of exposure at which early fatalities may occur.

As discussed above, Dr. Finlayson, in his consequence analysis, calculated that in the event of one of the more probable types of core melt accidents, there could be as many as 577 early fatalities with a mean of about 15 early fatalities. The same accident could cause up to 1,270 early injuries, with an average of about 18 such injuries. Failure to take adequate protective actions could increase those numbers substantially. Finlayson and Radford at 35.

2. Long Term Effects

(a) Cancer

The most prevalent long range physiological effect of radiation released during an accident at Shoreham will be increased incidences of cancer. Dr. Finlayson has calculated, using the CRAC-2 code and the latest Japanese atomic bomb data provided by Dr. Radford, that there could be between about 1000 and 1,700 cancer fatalities within the EPZ and between 7,000 and 8,700 fatal cancers outside of the EPZ, depending on evacuation speed and evacuation delay time (the time between public notification and the commencement of evaluation). Finlayson and Radford at Table 8(a).

In addition, Dr. Radford urged that any consideration of radiation-induced cancers should not be restricted to those resulting in death since the occurrence of cancer, even non-fatal, imposes significant suffering and economic loss upon its victims. Dr. Finlayson's CRAC-2 calculations, again using

the new Japanese atomic bomb data, show that within the EPZ, there could be between 1,810 and 3,500 incidences of cancer, both fatal and non-fatal, depending upon evacuation speed and delay time. Outside of the EPZ, between 15,700 and 17,400 cancer incidences could occur. Finlayson and Radford at Table 8(b).

(b) Genetic Effects

Dr. Seymour Abrahamson, Professor of Zoology and Genetics, University of Wisconsin, addressed the Legislature on the effects that radiation exposure may have upon future generations in the form of genetic diseases. The evidence at this time indicates that if one million parents are each exposed to one rem of radiation, there will be 100 additional occurrences of genetic disease among their offspring and 70 additional genetic diseases in the second generation. Tr. 1411. The genetic effects of radiation increase linearly according to dose; i.e., a 10 rem exposure to one million parents would result in 1000 additional genetic diseases in the first generation of offspring and 700 additional genetic diseases in the second generation. Tr., Jan, 27, 1983; Attachment D at 2.

An accident at Shoreham could subject a large segment of the population both inside and outside the EPZ to radiation. Therefore, on the basis of Dr. Abrahamson's testimony, it can be expected that some genetic diseases would occur in the offspring of Suffolk County residents as a result of such exposure during a radiological emergency.

3. Psychological Effects

Stanislav Kasl, Ph.D., a professor at the Yale University School of Medicine, addressed the Legislature on the psychological impacts on the population in the wake of a radiological emergency. Dr. Kasl noted that about 10 percent of the population surrounding TMI suffered severe psychological distress reflecting "anxiety, depression, anger, irritation, demoralization, hopelessness, helplessness and psycho-physiological symptoms." Tr. 1396-1397. Some groups, such as women and parents with young children, were more vulnerable to symptoms of psychological distress than others. Tr. 1398.

Thus, as Dr. Saegert also emphasized, the psychological effects following a radiological emergency reflect further costs that must be of concern to Suffolk County decision-makers. Tr. 1123.

F. The Health Effects of Sheltering

In the above section describing the evacuation time estimates, it became evident that evacuation from the western sectors of the EPZ during a radiological emergency would be impractical because of the extreme amounts of time -- 14 to 30 hours -- that would be required to evacuate those sectors. Given the unavailability of evacuation as a protective action, the only other practical option is sheltering -- i.e., staying indoors until the radioactive plume passes, after which some limited evacuation of persons in contaminated areas might be

feasible. At issue, however, is whether sheltering would provide adequate protection to Suffolk County residents during a radiological emergency. Dr. Radford and Dr. Karl Morgan, former Director of Health Physics at Oak Ridge National Laboratory and professor of health physics at Georgia Tech, addressed this issue before the Legislature.

As Dr. Morgan noted, Suffolk County has a prevalence of frame houses which do not provide as much protection from radiation as do brick or stone buildings. Thus, the typical house in Suffolk County would reduce a dose of radiation only by approximately one half. Tr. 1391. Dr. Radford estimated that if, during the more probable core melt accidents, the western sectors did not evacuate, Suffolk County citizens residing in those sectors would experience 4,500 occurrences of cancer above normal levels. Tr. 1419-1421. About half of those cancers would be fatal. See Finlayson and Radford at 20. Therefore, sheltering under those circumstances would result in about 2250 cancer deaths.

In a very severe accident, the consequences of sheltering as the only practical protective action would be much worse. Figure 11 of the Finlayson and Radford report shows that in such an accident, the outer sectors of the EPZ, including the western sectors, could receive significant doses of radiation. At the mid-point of one of the outer sectors (about 15 miles from the plant), there would be a 20 percent chance of

receiving a 200 rem dose. Finlayson and Radford, Figure 11. While sheltering would reduce exposure to 100 rems, that is still a very high dose which would be likely to cause acute illness. See Finlayson and Radford at 17. In addition, at 15 miles from the Shoreham plant, Figure 11 shows a 70 percent chance of receiving 30 rems and a 90 percent chance of a 10 rem dose. Again, sheltering would reduce those doses by half, but they would still lead to significant increases in the numbers of cancers occurring in the population. See Tr. 1419-1421.

VI. CONCLUSION

The unique local conditions on Long Island create problems and obstacles which make it impossible to develop a radiological emergency response plan that protects the health, welfare and safety of the County's residents. In fact, there can be no emergency preparedness to protect the public safety in the event of a serious nuclear accident at the Shoreham plant. Therefore, the County Executive concludes that the Draft County RERP should be rejected. This is not a reflection upon the County experts, whose efforts were diligent and whose work product was consistently excellent, but upon the insurmountable problems intrinsic in planning for a radiological accident on this island.

In addition, any RERP that has not even attempted to confront and deal with the problems of local conditions and the obstacles they pose for emergency preparedness on Long Island and the likely human behavior in a radiological emergency in Suffolk County is obviously grossly deficient. Therefore, LILCO's RERP, submitted to the DPC without the authority of the County, should also be rejected by the Legislature as a paper exercise which would, at best, give only the vaguest illusion of preparedness.

Finally, the data which have been compiled in the County's emergency planning efforts document that no RERP can be prepared and implemented that protects the health, welfare and safety of Suffolk County's citizens. Accordingly, the County Executive recommends that this fact be recognized and that the County terminate efforts to create emergency planning for a Shoreham accident. Such planning would be disingenuous -- creating the spectre that public health, safety and welfare can be protected when, in fact, the opposite is true.

Shoreham Plant Should Be Stopped Now

The following is a statement made yesterday by Suffolk County Executive Peter F. Cahalan on the Shoreham nuclear power plant and emergency preparedness in Suffolk.

I am today announcing my position on the issue of radiological emergency preparedness in Suffolk County. My conclusion — which is elaborated in detail in a 80-page report — is twofold.

First, the unique local conditions of Long Island make it impossible to protect the public safety if there were a serious accident at the Shoreham plant. In short, there never can be emergency preparedness to protect our citizens.

Second, the result of no emergency preparedness is that Shoreham should never operate. LILCO (the Long Island Lighting Co) voluntarily — or the NRC (the Federal Nuclear Regulatory Commission) through its mandate — should immediately bring a halt to the Shoreham project.

The inevitable economic consequences of closing down Shoreham must be dealt with justly and equitably among all the affected parties — LILCO's shareholders and ratepayers and the taxpayers. LILCO must not in any way be enriched for its decade-long mismanagement of the Shoreham project.

I am prepared to lead the fight in both Washington and Albany to get these things done, and if the legislature tomorrow takes action consistent with my position, I will promptly get moving with the necessary initiatives.

I am acting before the [Suffolk County] legislature meets tomorrow (Thursday) because both the legislature and the public have the right to know where the county executive stands. Throughout the past year, the legislature and I have worked cooperatively and in a united stance in matters of Shoreham's safety. I would welcome the legislature again joining me and seeking to put LILCO's blunder at Shoreham behind us once and for all.

Radiological emergency preparedness for Shoreham is the most significant issue of public safety that this county government has faced. It affects the health, safety and welfare of Suffolk's 1.3 million citizens and the hundreds of thousands of visitors who annually use our recreational facilities and shoreline. There is no competing value, be it political, economic or otherwise, that could justify our giving the public's safety any priority other than the very highest.

Over the past year, our unified county government has held to the emergency planning program established by Resolution 262-1982. We have not only succeeded in preparing our own Draft Radiological Emergency Response Plan, but we have fought off LILCO's frequent distractions and even the State Disaster Preparedness Commission's threat to usurp the county's right to protect its own citizens.

Last March, the county commissioned an intensive radiological emergency response planning program. We assembled a team of nationally recognized experts and gave them free rein to prepare the "best possible plan." They were instructed to focus on the particular local conditions of Long Island, on the established body of expert knowledge, and on the lessons of Three Mile Island. We wanted an effective plan — one that would work to protect the public — not a "paper plan" which looks good on the shelf, but fails in an emergency.

The draft county plan and the analyses, studies, and surveys which accompany it were completed at a cost of nearly \$600,000. I transmitted those documents to the legislature on Dec. 2, and during January, the legislature held eight days of hearings to take expert and public testimony. We now have the evidence necessary to make an informed choice of how best to protect the public's safety.

For me there is only one choice. Suffolk County should reject the draft county plan and any other plan by bluntly stating this inescapable conclusion: It is impossible to establish emergency preparedness in Suffolk County that can protect the public health, safety and welfare in the event of a serious nuclear accident at Shoreham.

The county's analyses of the past year and the legislative hearings not only disclose difficult radiological emergency planning problems in Suffolk County, but they demonstrate insurmountable obstacles to protecting the public's safety. These obstacles are today beyond everyone's control. They are the product of decisions made a decade ago to permit Shoreham to be built at a site unsuitable for effective emergency preparedness.

Simply put, it is the nature of the Shoreham plant and where it is located that would prevent the county from being able to take effective protective action in the event of a serious Shoreham accident. Effective radiological emergency preparedness for such an accident



Peter F. Cahalan

'It is impossible to establish emergency preparedness in Suffolk County that can protect the public health, safety and welfare in the event of a serious nuclear accident at Shoreham.'

can never exist in Suffolk County — no matter who prepares or implements the plan.

This is a harsh reality. But it would be much harsher if Shoreham were to operate and a nuclear accident imperiled the safety of thousands of our citizens who could not protect themselves. We must not put into place a "paper plan" — a sugar-coated package of platitudes which serve LILCO's self-interest. That would only lull the public into believing that they are protected when they in fact are not.

To those who argue that a serious nuclear accident at Shoreham is a remote possibility, I can only ask whether they would have us spin the wheel of fortune and look the other way. Government officials who have sworn to protect the public safety do not have the luxury of treating emergency preparedness and the public's safety as a casino game.

Therefore, I believe that Suffolk County should resolve that it will neither adopt nor implement any local radiological emergency response plan. The result of this action will necessarily be to end the county's neutrality toward the ultimate operation of Shoreham and to place us squarely against operation of the plant.

It is possible that such a county decision would ultimately bring us into conflict with the federal government, where the policy has generally been to promote the development of nuclear power plants. If such a conflict arises, I am prepared to lead the battle. We cannot afford to be timid when a principle of public safety which is of such compelling importance to the people of this county is at stake.

Putting safety first in this case, as we must, will of course have economic consequences. For if Shoreham does not operate, it will represent LILCO's \$3.2-billion mistake. The plain fact is that throughout the years of Shoreham's construction, LILCO has mismanaged the Shoreham project. In my view, we must assure that LILCO in no way profits from its mismanagement and imprudence.

Nevertheless, the reality is that the costs of Shoreham will have to be borne — borne by a combination of LILCO's shareholders, ratepayers and the

taxpayers. That now is the price of protecting public safety in Suffolk County, but it is a price that must be equitably allocated.

To assure that the economic costs of Shoreham are dealt with equitably, I propose to commence a major initiative in Albany — in both the governor's office and the Public Service Commission. I will ask the state to determine that if Shoreham does not operate, the costs of the plant will not fall unreasonably upon the innocent ratepayers who have suffered LILCO's continuing mismanagement. The management of LILCO must take responsibility for its own blunders, and we in Suffolk County are not going to be LILCO's bailout.

Finally, although unrelated to my decision on emergency preparedness, it is important for the public to know that during the past year, LILCO has been a thoroughly disruptive influence on the county's efforts to assure a safe Shoreham plant. Repeatedly, the legislature and I have requested, demanded, almost begged LILCO to perform an open and independent design review and physical inspection of the Shoreham plant. We have even offered to pay for it.

At every opportunity, however, LILCO has slammed the door in the county's face. It has ignored the purpose of county legislative resolutions and done little more than play games with us.

Nevertheless, in LILCO's usual self-serving style, LILCO has done its own version of a physical inspection, and has had the nerve to call it "independent." As far as I am concerned, LILCO's inspection is nothing more than a self-inspection of LILCO by LILCO.

It was LILCO that conceived the work program for the inspection and secretly made all the arrangements for how it would be performed. LILCO did this behind closed doors and without the county's knowledge. In fact, at the very moment that LILCO was negotiating with the county — supposedly in good faith — LILCO was actually behind our back making a deal with its own chosen inspectors to do an inspection of Shoreham the way LILCO liked it done.

LILCO's inspection should be looked at now as little more than a continuation of the public relations propaganda campaign that LILCO has lived by during the past year.

Unfortunately, there seems to be an end to LILCO's deceit. Last week, when the members of the legislature ventured to Three Mile Island in a good faith effort to learn first hand the lessons of that accident, LILCO's personnel working behind the scenes stacked the deck of witnesses and then told the witnesses not to mention that they had been selected by LILCO.

But none of this can equal the gross arrogance of LILCO last May in sending to the State of New York for approval a document which LILCO falsely entitled "Suffolk County Radiological Emergency Response Plan."

While any reasonable public-utility management should have realized that such action was a betrayal of the trust that the public conveyed in giving the utility monopoly power, LILCO never got the message. Instead, LILCO continued to fight in Albany for its false plan, and to this day we have no reason to believe that it has changed its unfitting course. Suffolk County will never accede to such actions by LILCO, and we shall strive to reveal the true pettiness and even cynicism that those actions display toward the public's safety.

Perhaps nothing more sharply punctuates LILCO's cavalier attitude toward the public's safety than its knee-jerk reaction last weekend to the powerful terms of events at the NRC. The NRC's own expert — the very person whom the NRC promoted as its technical spokesman on two critical safety issues — reversed his earlier testimony that supported LILCO. This NRC expert — in an affidavit under oath — now says (that) "LILCO truly does not understand what is required minimally for safety by NRC under the regulations."

But, instead of finally sobering up and facing this inescapable indictment, LILCO callously shrug off the NRC's condemnation and calls it "no big deal." Such indifference by LILCO to public safety is worse than a blow below the belt. It raises basic doubts whether LILCO should even have the right to provide electric service in this county.

The reality is that LILCO will surely respond to a county emergency planning decision which it does not like with even more public-relations propaganda and more dodging and weaving around the facts. I am ready for the challenge of taking on LILCO to protect the public safety. I invite the legislature to join me in this cause. And, together, I am confident that we will prevail.

**LONG ISLAND LIGHTING COMPANY**

175 EAST OLD COUNTRY ROAD · HICKSVILLE, NEW YORK 11801

MATTHEW C. CORDARO, Ph. D.
VICE PRESIDENT

May 10, 1982

Commissioner William Hennessey
Chairman
Disaster Preparedness Commission
c/o Dr. David Axelrod
N.Y.S. Dept. of Health
Empire State Plaza
Tower Building
Albany, N. Y. 12237

Dear Commissioner Hennessey:

On August 11, 1981, the Suffolk County Legislature passed Resolution No. 694, approving a contract for the development of a local off-site emergency plan for the Shoreham Nuclear Power Station; the contract had previously been signed on behalf of the Suffolk County Executive and LILCO. A copy of the contract is attached to this letter.

Under the September 18th contract, County emergency planners, funded by \$245,000 from LILCO, were to prepare the local off-site emergency plan for Shoreham, to be completed within six months of the contract's effective date. County emergency planners, assisted in various ways by LILCO, have in fact produced a local off-site emergency plan for Shoreham. It is bound in two binders, which were produced at the request of the County Planning Department, entitled "Suffolk County Radiological Emergency Response Plan" and "Suffolk County Radiological Emergency Response Plan - Appendix A."

LILCO hereby submits the local off-site emergency plan for Shoreham to the Disaster Preparedness Commission for its review. Also included is a separate volume containing the missing Suffolk County Health Department Section which was prepared by Stone & Webster at the request of the Suffolk County Planning Department. This section has not yet received final County review.

Commissioner William Hennessey
Chairman
Disaster Preparedness Commission
May 10, 1982
Page 2

As you know, the County has recently refused to endorse the local off-site emergency plan prepared by its own planners, and has attempted to return the funds provided to it by LILCO under the contract of September 18. However, political endorsement of the plan is not required for its submission to and review by New York State and FEMA; the contracted work, essentially completed, is ready for review. The County can certainly fine-tune this local off-site plan if its further emergency planning efforts so require.

Very truly yours,

M. C. Cordaro

Matthew C. Cordaro, Ph. D.
Vice President

MCC:tz

Attach.

NOV 19 1982

COUNTY OF SUFFOLK

ATTACHMENT 12



OFFICE OF DISTRICT ATTORNEY

ADDRESS REPLY TO:
SPECIAL INVESTIGATION UNIT

PATRICK HENRY
DISTRICT ATTORNEY

November 16, 1982

David J. Gilmartin, Esq.
Suffolk County Attorney
H. Lee Dennison Building
Hauppauge, NY 11788

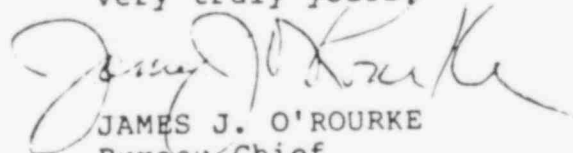
Dear Mr. Gilmartin:

Pursuant to your request, this office has reviewed the report to the Subcommittee of the Suffolk County Legislature concerning the actions of LILCO in filing an Emergency Radiological Evacuation Plan.

It would appear by a review of the correspondence dated May 10, 1982 of Dr. Matthew C. Cordaro to Commissioner William Hennessey that LILCO advised the state of the county's position with respect to the Radiological Emergency Evacuation Plan. This letter clearly indicates that LILCO fully acknowledged the county's disavowal of the off-site emergency plan submitted on May 10, 1982. Indeed, there is evidence to suggest that in April of 1982 a meeting was held with the county, state and LILCO officials present in which LILCO suggested its alternative to approval by the county of the evacuation plan was to submit a draft as is. LILCO has plainly maintained since April that the County's final approval is not required. Regardless of the substantive merit of that position, no mens rea on the part of LILCO can be found.

Though it cannot be denied that the binder and title of the Radiological Evacuation Response Plan suggested it was Suffolk County's plan, this was not an attempt to mislead any public agency. This certainly does not rise to the level of criminal conduct and while perhaps ill-advised is not a matter for action by this office.

Very truly yours,


JAMES J. O'ROURKE
Bureau Chief

JJO:bam

cc: Peter F. Cohalan
Suffolk County Executive

John Wehrenberg, Presiding Officer
Suffolk County Legislature

Rosalind Gordon, Esq., LILCO ✓

**LONG ISLAND LIGHTING COMPANY**

175 EAST OLD COUNTRY ROAD • HICKSVILLE, NEW YORK 11801

MATTHEW C. CORDARO, Ph. D.
VICE PRESIDENT

September 17, 1982

Mr. John C. Gallagher
Chief Deputy County Executive
Office of the County Executive of
Suffolk County
Veterans Memorial Highway
Hauppauge, New York 11788

Dear Mr. Gallagher:

I am in receipt of your letter of September 8, 1982, in which you ask that LILCO reconsider its plan to resubmit to the State Disaster Preparedness Commission the offsite emergency preparedness plan on which the Company has been working. I deeply regret that you view LILCO's actions as an insult to the County's authority; I assure you they were never intended as such.

Indeed, LILCO is in agreement with you on the fundamental point that the LILCO onsite plan should be integrated with the County's offsite planning efforts. But we do not see any reason to wait until the County has produced a plan, largely without LILCO's input, to begin the integration process. We believe now, and have always believed, that it would be more productive for the County and LILCO to work together to develop both plans. We are willing to meet at any time and place you suggest with the County's consultants or emergency planning steering committee for this purpose. Indeed, at the County's request some of LILCO's probabilistic risk assessment consultants have already met with the County's emergency planning consultants, and we understand that the meetings were productive. Also, on more than one occasion we have asked the County, through its lawyers, to resume joint planning meetings with us on a general basis, but the only response was that the County is unwilling to pursue joint planning in the present "litigation environment." We would like to take this opportunity to reiterate our offer to you with the hope that you can facilitate a favorable response.

Let me make absolutely clear to you that LILCO does not presume to take upon itself the legal responsibilities or authority of the County government. Our only purpose in preparing an offsite plan (and in doing so we have relied as much as possible on the past work of County employees) has been to expedite the long and detailed process of achieving true emergency preparedness.

Mr. John C. Gallagher

-2-

September 17, 1982

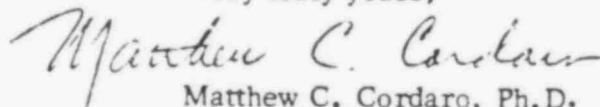
At present the County has chosen not to avail itself of LILCO's help, but that was not always the case, and we hope it will not be the case in the future. If the County eventually decides to reject LILCO's work, or to modify it substantially, so be it. But we have thought it prudent to go ahead and do the work, recognizing that some of it may prove to have been in vain, in the hope that we may thereby avoid delaying the operation of the Shoreham plant. As for submitting the LILCO offsite plan to the State, we have done so merely because we believed that an early indication of what parts of the plan the State finds adequate and what parts need improvement would save time and be helpful to everyone.

I do not believe that LILCO's work, or the submittal of that work to the State, is "contrary to the interests of Suffolk County's efforts to pursue effective local emergency planning." It might be so if LILCO had refused the County information it needs or refused to work with the County. But we have not. To the contrary, until the day after the prehearing conference before the NRC Licensing Board on April 14 of this year, we were having at least weekly meetings with the Suffolk County Planning Department personnel then responsible for developing the County's emergency plan. And we were in telephone communication with the County planners on a daily basis. During these discussions, we addressed problems brought up by the Suffolk County Planning Department people and made commitments for the Company. These commitments included arrangements for communications systems, radiological assessment equipment, dose projection assistance, graphic art assistance, and printing services. The day after the NRC prehearing conference, however, we received a phone call from the Suffolk County Planning Department stating that any further discussions concerning Suffolk County's emergency plan for Shoreham would have to be referred to Frank Jones. This message was subsequently repeated by other Suffolk County personnel. Also, I am told we were refused permission by the County to install emergency communications equipment on the existing radio tower at the Suffolk County Police Headquarters in Yaphank.

LILCO has no quarrel at all with the County's legitimate attempts to produce an excellent offsite plan. But we do have concerns that the County's plan will not be finished, without help from us, in time to support the licensing of our Shoreham Plant. It would be a great disservice to all the public to let that happen.

Let me close by repeating that much of the work LILCO has done on the offsite plan, as well as the resources and experience of LILCO employees and consultants, would be of use to the County in developing its plan. LILCO takes no pleasure in working on emergency planning without the County. I urge you to resume joint planning with LILCO as soon as possible.

Very truly yours,


Matthew C. Cordaro, Ph.D.
Vice President

cc: Nassau/Suffolk Senate Delegation
Nassau/Suffolk Assembly Delegation
Suffolk County Legislators
Honorable Stanley Fink - NYS Assemblyman

HUNTON & WILLIAMS

707 EAST MAIN STREET P. O. Box 1535

RICHMOND, VIRGINIA 23212

TELEPHONE 804-788-8200

August 7, 1982

WACHOVIA BANK BUILDING
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RALEIGH, NORTH CAROLINA 27602
919-828-9371

FIRST VIRGINIA BANK TOWER
101 ST. PAUL'S BOULEVARD
NORFOLK, VIRGINIA 23510
804-625-5501

1919 PENNSYLVANIA AVENUE, N. W.
P. O. BOX 19230
WASHINGTON, D. C. 20036
202-223-8650

FILE NO.

DIRECT DIAL NO. 804-788-

Herbert Brown, Esq.
Cherif Sedky, Esq.
Christopher M. McMurray, Esq.
Kirkpatrick, Lockhart, Hill,
Christopher & Phillips
1900 M Street, N.W.
Washington, D.C. 20036

Gentlemen:

At our meeting Tuesday, August 3, you suggested that emergency planning ought really to be the product of cooperation between the County and LILCO. We agree. You suggested that one way to effect this cooperation would be to try to persuade the Board to postpone the litigation of the Phase I issues. We of course can't agree to that unless cooperation is first resumed and shows signs of producing emergency arrangements acceptable to both the County and Company. We do think cooperation rather than antagonism is the right way to go about emergency planning. LILCO is willing and able to cooperate with the County at any time.

Coincidentally, on Wednesday, August 4, Judge Carpenter expressed an interest in knowing what arrangements are being made to include LILCO, and others, in the County's planning

HUNTON & WILLIAMS

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efforts. We suggest that one or two LILCO people be made a part of the Steering Committee that is overseeing the County's present emergency planning work.

Also, LILCO's emergency planning people are ready to resume meeting with your emergency planning people, whether they be the County's outside consultants or County employees, to coordinate the County's planning with LILCO's.

We look forward to hearing from you about the optimum means for the County and LILCO to get together anew on emergency planning. The Company remains very interested in doing so.

Yours very truly,



W. Taylor Reveley, III
James N. Christman
Kathy E. B. McCleskey

79/765



LONG ISLAND LIGHTING COMPANY

175 EAST OLD COUNTRY ROAD · HICKSVILLE, NEW YORK 11801

MATTHEW C. CORDARO, Ph. D.
VICE PRESIDENT

September 29, 1982

Mr. Frank Jones
Deputy County Executive
H. Lee Dennison Building, 9th Floor
Veterans Memorial Highway
Hauppauge, New York 11788

Dear Mr. Jones:

On October 12, 13, and 14 at 10:30 AM there will be meetings held at the Shoreham Nuclear Power Station, second floor, Security Building to discuss the distribution of Tone Alerts to special facilities in the vicinity of the plant. This is strictly an informational meeting with the representatives of those facilities to inform them of the purpose of the Emergency Broadcast System and where Tone Alerts fit in.

LILCO would like to invite you or your representative to attend any or all of these meetings.

In the near future, we plan to distribute Tone Alert Receivers to these facilities and would like your participation in this effort as well.

To assure proper security clearance for you or your representative, please fill out the enclosed postcard and return it by October 8. When you arrive at Shoreham, we will have Visitors' Passes available for you at the East Gate and we urge you to arrive at the Gate by 10:15 AM.

If you have any questions, please call either Mr. Darrell M. Lankford, Associate Director of Nuclear Information (929-8300, ext. 286) or Mr. William F. Renz, Associate Scientist, Nuclear Engineering (733-4676).

Very truly yours,

MCC:pmm

Enclosure

bcc: Mr. W. O. Uhl
Mr. C. J. Davis
Mr. E. M. Barrett
Mr. I. L. Freilicher
Mr. M. S. Pollock

Ms. C. A. Clawson
Mr. D. M. Lankford
Mr. W. F. Renz
Ms. K. McCleskey

**LONG ISLAND LIGHTING COMPANY**

175 EAST OLD COUNTRY ROAD · HICKSVILLE, NEW YORK 11801

MATTHEW C. CORDARO, Ph. D.
VICE PRESIDENT

October 4, 1982

The Honorable John C. Gallagher
Chief Deputy County Executive
County of Suffolk
H. Lee Dennison Building
Veterans Memorial Highway
Hauppauge, New York 11788

Dear Mr. Gallagher:

I am in receipt of your letter of September 16, 1982, raising certain concerns about an emergency preparedness brochure to be produced by this Company. As you probably know, federal regulations require that a public education program be undertaken as part of the overall implementation of emergency preparedness. One of the means by which public education will be furthered is the preparation and distribution of a brochure relating to emergency preparedness plans.

Drafts of such a brochure were prepared a long time ago, and were in fact reviewed in the development stage by the County personnel responsible for emergency planning at that time.

Since these early drafts were prepared, however, Suffolk County has drastically changed its plan regarding emergency planning implementation. It is now our understanding that the County has a task force which we have been told is working on emergency planning. As I have stated in past correspondence with you, we still hope that the County produces an implementable plan in the near future, and we are willing and anxious to cooperate with the County in this endeavor.

Nevertheless, LILCO is obligated to distribute an emergency planning brochure prior to the loading of fuel at Shoreham. That brochure will accurately reflect the state of affairs regarding the County's emergency planning efforts to the extent we are made privy to such efforts by that time.

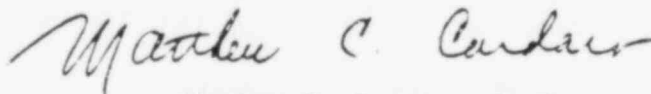
The Honorable John C. Gallagher

-2-

October 4, 1982

The draft of a brochure described in your September 16, 1982 letter was obtained, as we understand it, through discovery in the ASLB proceeding. It reflected an earlier and more halcyon view of the County's emergency planning efforts. Because of uncertainty as to when and if the County will engage in emergency planning, the brochure was left in draft form and not distributed.

Very truly yours,

A handwritten signature in cursive script that reads "Matthew C. Cordaro".

Matthew C. Cordaro, Ph.D.
Vice President



LONG ISLAND LIGHTING COMPANY

175 EAST OLD COUNTRY ROAD · HICKSVILLE, NEW YORK 11801

Direct Dial Number 516 420-6300

October 7, 1982

Mr. Frank R. Jones
Deputy County Executive
H. Lee Dennison Executive Office Building
Veterans Memorial Highway
Hauppauge, New York 11788

Dear Mr. Jones:

The following is a brief description of the Shoreham Prompt Notification siren system as requested in your telephone conversation with me on Friday, October 1, 1982.

The Prompt Notification System for Shoreham Nuclear Power Station is required by NUREG-0654, Rev. 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants." The Shoreham system consists of 89 sirens distributed throughout the 10 mile Emergency Planning Zone (EPZ).

The sirens will be activated by means of a coded radio signal transmitted from two control stations, one designated as the primary and the other as the back-up control station. Each control station will have similar type control equipment; i.e., encoder, transmitter and antenna. The Suffolk County Police Headquarters and the Office of Emergency Preparedness, both located in Yaphank, have been selected as the primary and back-up control stations for the Shoreham siren system.

Details of work to be done in the Suffolk County Police Headquarters and Office of Emergency Preparedness, Yaphank, are outlined on Attachments A and B. A purchase order to do this work was issued to Ed's Communication Service Inc. on June 21, 1982. In addition, we anticipate that the County would plan to coordinate any secondary notification methods that they feel are appropriate from these same locations. Therefore, we would be pleased to discuss any additional coordination efforts you feel are required in this area.

After your review please notify and confirm in writing permission to proceed with these two installations.

Very truly yours,

W. G. Schiffmacher
Manager,
Electrical Engineering Department

Attachments

ATTACHMENT A

Specific Work Requirements

Department of Emergency Preparedness - Yaphank

The following work will be done at the above location as outlined in attached Sketch JM-1, 1A

1. Install Motorola Radio base station in communications closet of communications room located in basement of Suffolk County Office of Emergency Preparedness.
2. Install one 3/4" EMT Conduit in hung ceiling from radio base station (Item 1) to desk top Fisher Pierce encoder located in operations room. This will require penetrating one cinder block wall.
3. Install half-inch Heliacx cable (Andrew type FHJ450B) from base station (Item 1) through 18 inch sleeve to antenna tower, and terminate on antenna at elevation 160 ft., also to be installed by contractor. Drag line is available in duct for pulling purposes. Upon completion of pull, contractor shall make available a drag line for future cable installations. Cable shall be strapped to tower at intervals short enough to prevent movement of cable during periods of hurricane force winds.
4. Install one twisted shielded pair of #16 wire in 3/4" conduit, Item 2 above. This cable will be terminated on encoder in operations room and radio base station in communications room.
5. T1600 remote control console and encoder will be located on desk top in operations room. Interconnection of encoder, T1600 and radio base station will be in accordance with Sketch JM-1A

The following is a list of equipment to be supplied by:

LILCO

Radio base station
Antenna and antenna mounting kits
Heliacx antenna cable
Fisher Pierce encoder
T1600 remote control console

Contractor

3/4 inch EMT conduit and fittings. #16 AWG twisted shielded pair cable. Miscellaneous connectors for antenna, base station, encoder and T1600 console. Antenna cable tower straps.

The contractor shall give a minimum of two days advance notice to the LILCO Engineer, J. Minto (516-733-4899) to arrange for LILCO supplied equipment to be picked up by the contractor at the LILCO Storeroom, Hicksville Operations Center.

FC-179-55

PREPARED BY J MINTO

PG. _____

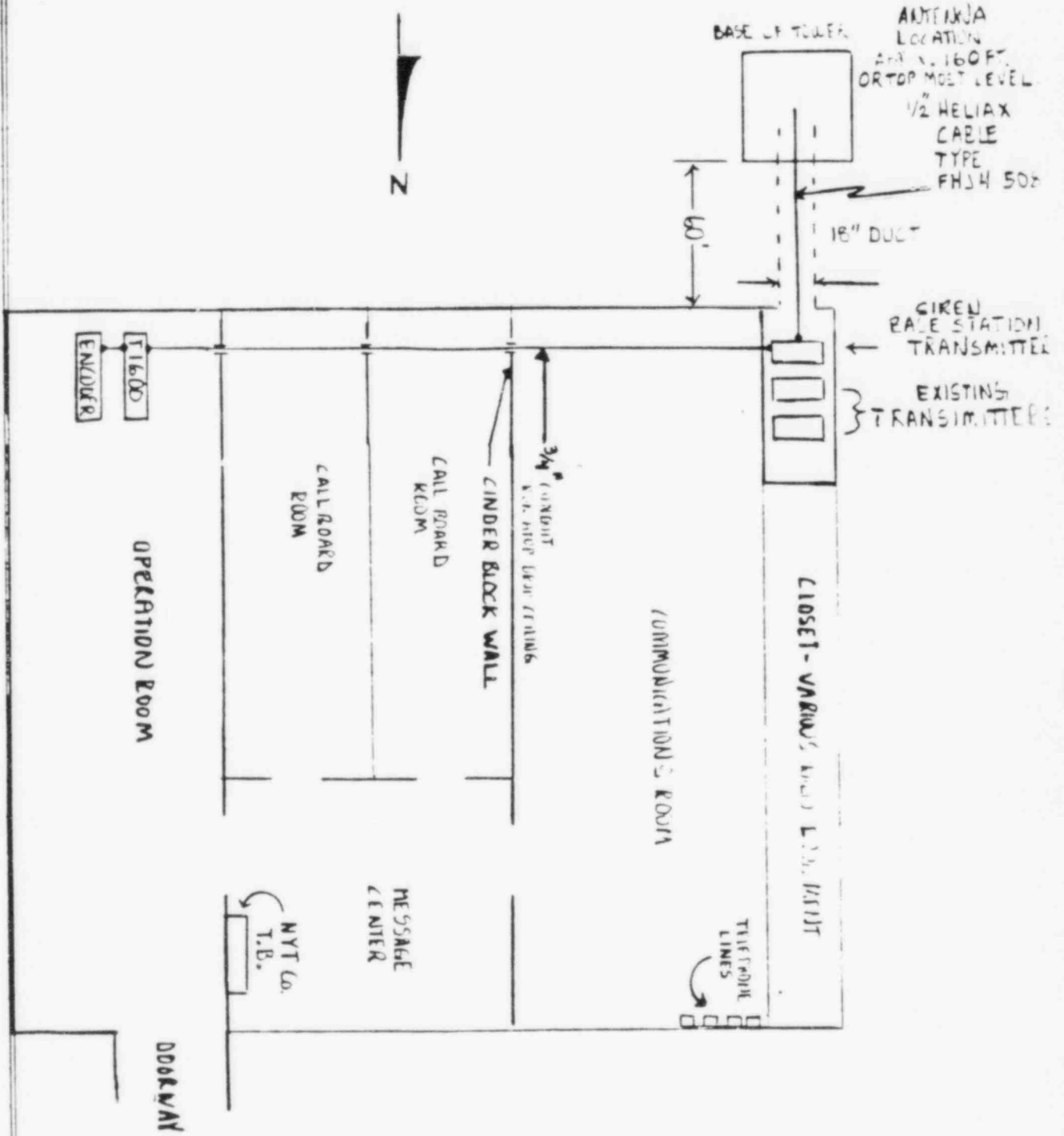
DATE 4-20-82

LONG ISLAND LIGHTING COMPANY

W. O. NO. _____

SUBJECT LAYOUT OF DEPT. OF EMERGENCY PREPAREDNESS

ACCT. NO. _____



NOT TO SCALE

SKETCH NO. TM-1

FC-179-55

PREPARED BY J. MINTO

PG. _____

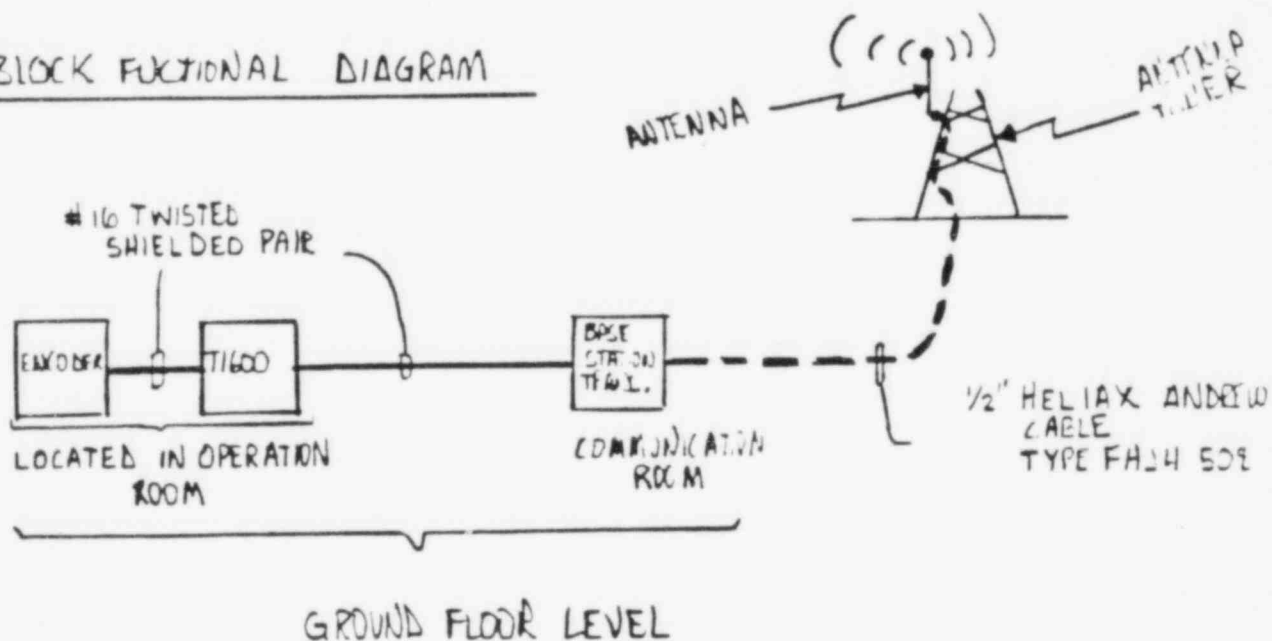
DATE 4-20-82

LONG ISLAND LIGHTING COMPANY

W. O. NO. _____

SUBJECT LAYOUT OF DEPT. OF EMERGENCY PREPAREDNESS ACCT. NO. _____

BLOCK FUNCTIONAL DIAGRAM



SKETCH No. JM-1A

ATTACHMENT B

Specific Work Requirements
Suffolk County Police Department - Yaphank

The following work will be done at the above location as outlined in attached Sketch JM-2, 2A

1. Install Motorola Radio base station in communications Room 123 located in first floor of building. Location of base station is as shown on Sketch JM-2.
2. Install half-inch Heliac cable (Andrew type FHJ450B) from base station (Item 1) through 18 inch sleeve to antenna tower and terminate cable on antenna on S.E. corner of tower at elevation 200 ft. also to be installed by contractor. Drag line is available in duct for pulling purposes. Upon completion of pull, contractor shall make available a drag line for cable installation. Cable shall be strapped to tower at intervals short enough to prevent movement during periods of hurricane force winds.
3. Install one twisted shielded pair cable from Demark Point in Room 123 to radio base station.
4. Tl600 remote control console and encoder shall be located on table in duty officer's room, second floor. Inter-connection of these devices shall be in accordance with Sketch JM-2A. The Tl600 console shall be connected to the radio base station, first floor, via #16 AWG twisted shielded pair to S.C.P.D. terminal block in duty officer's room installed by others. Cable from S.C.P.D. terminal block to Demark Point in Room 123 first floor has been installed by others.

The following is a list of equipment to be supplied by:

LILCO:

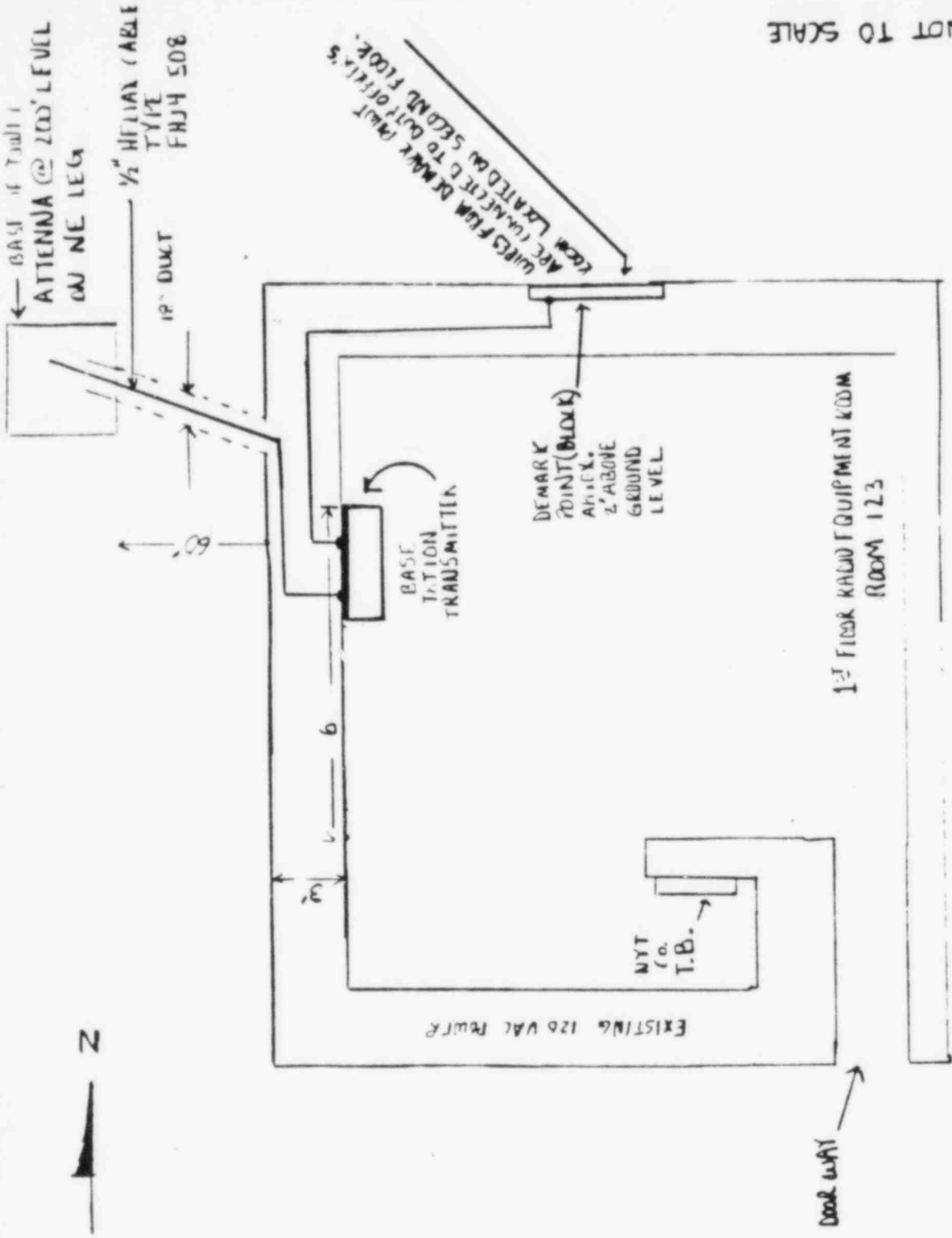
Radio base station
Antenna and antenna mounting kits
Heliac antenna cable
Fisher Pierce Encoder
Tl600 Remote Control Console

Contractor

No. 16 AWG twisted shielded pair cable
Miscellaneous connectors for antenna,
Base station, encoder and T1600 console
Antenna cable tower straps

The contractor shall give a minimum of two days advance notice to the LILCO engineer, (J. Minto, (516) 733-4899) to arrange for LILCO supplied equipment to be picked up by the contractor at the LILCO Storeroom, Hicksville Operations Center.

NOT TO SCALE



FC-179-55

PREPARED BY J. MINTO

DATE 4-20-82

LONG ISLAND LIGHTING COMPANY

W. O. NO.

ACCT. NO.

SUBJECT LAYOUT OF POLICE BASE STATION

PC

FC-179-55

PREPARED BY J. MINTO

PG.

DATE 4-20-82

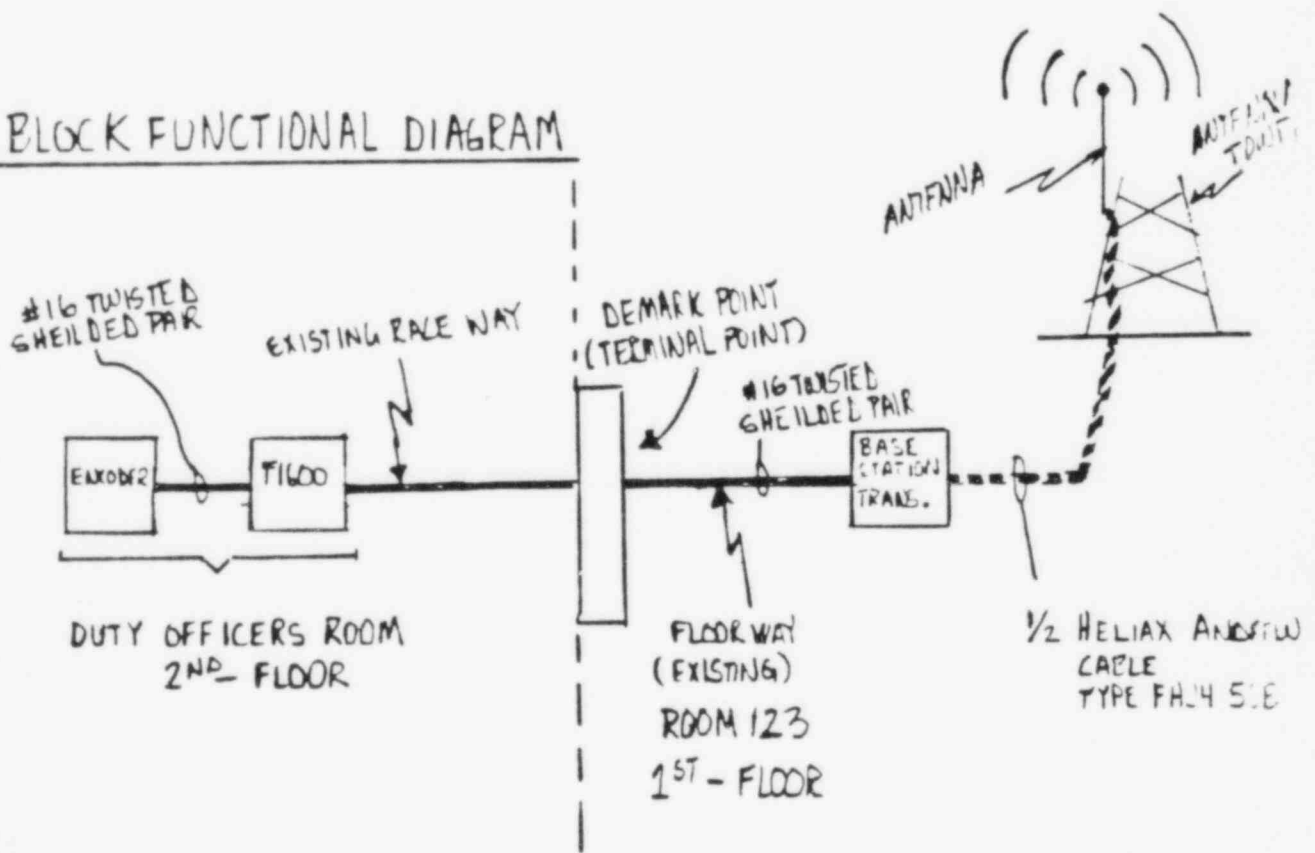
LONG ISLAND LIGHTING COMPANY

W. O. NO.

SUBJECT WORK REQUIRED FOR POLICE STATION

ACCT. NO.

BLOCK FUNCTIONAL DIAGRAM



SKETCH No. -JM-2A

DOCKETED

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CERTIFICATE OF SERVICE

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

I hereby certify that copies of LILCO's Brief in Opposition to Suffolk County's Motions to Terminate This Proceeding and for Certification were served this date upon the following by first-class mail, postage prepaid, by hand (as indicated by an asterisk), or by Federal Express (as indicated by two asterisks):

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Administrative Judge
Atomic Safety and Licensing
Board Panel
U.S. Nuclear Regulatory
Commission
Washington, D.C. 20555

Dr. Peter A. Morris*
Administrative Judge
Atomic Safety and Licensing
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Dr. James H. Carpenter*
Administrative Judge
Atomic Safety and Licensing
Board Panel
U.S. Nuclear Regulatory
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Secretary of the Commission
U.S. Nuclear Regulatory
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Atomic Safety and Licensing
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Richmond, Virginia 23212

DATED: March 18, 1983