

DOCKETED

LILCO, January 10, 1983

'83 JAN 12 10:50

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. 50-322 (OL)

TESTIMONY OF WILLIAM E. GUNTHER, JOSEPH M. KELLY,  
ARTHUR R. MULLER AND WILLIAM STEIGER  
ON PORTIONS OF SUFFOLK COUNTY CONTENTION 13  
REGARDING REGION I INSPECTION REPORT NO. 82-34

DE03

## TABLE OF CONTENTS

	<u>Page</u>
I. GENERAL INFORMATION.....	3
II. NRC REGION I INSPECTION REPORT NO. 82-34.....	5
A. Paragraph 4.2.3.2.1.....	6
B. Paragraph 4.2.3.3.2.....	6
C. Paragraph 5.3.1.4.....	10
D. Paragraph 6.2.....	12
E. Paragraph 6.4.1.....	13
F. Paragraph 7.3.....	18
G. Paragraph 7.4.1.....	19
H. Paragraph 8.4.1.....	20
I. Paragraph 8.4.4.....	21
J. Paragraph 11.3.1.....	23

I. GENERAL INFORMATION

Q. Each of you please state your name, employer and business address.

A. (Gunther) My name is William E. Gunther. I am employed by Long Island Lighting Company ("LILCO") as Instrumentation and Control Engineer. My business address is Shoreham Nuclear Power Station, Post Office Box 628, Wading River, New York 11792.

A. (Kelly) My name is Joseph M. Kelly. I am employed by LILCO as Field QA Manager. My business address is Shoreham Nuclear Power Station, Post Office Box 618, Wading River, New York 11792.

A. (Muller) My name is Arthur R. Muller. I am employed by LILCO as Operating Quality Assurance Engineer. My business address is Shoreham Nuclear Power Station, Post Office Box 628, Wading River, New York 11792.

A. (Steiger) My name is William Steiger. I am employed by LILCO as Chief Operating Engineer. My business address is Shoreham Nuclear Power Station, Post Office Box 628, Wading River, New York 11792.

Q. Have each of you previously filed a resume in this proceeding and, if so, state where and whether that resume is still accurate.

A. (Gunther) My resume is attached to "LILCO's Motion to Withdraw Certain Witnesses and to Join Other Witnesses on SC Contention 3 and SOC Contention 8 -- Inadequate Core Cooling" and remains an accurate summary of my educational and professional qualifications.

A. (Kelly) My resume is Attachment 3 to my previously filed testimony on Suffolk County Contentions 12 through 15 and remains an accurate summary of my educational and professional qualifications.

A. (Muller) My resume is Attachment 3 to my previously filed testimony on Suffolk County Contentions 12 through 15 and remains an accurate summary of my educational and professional qualifications.

A. (Steiger) My resume is an attachment to my previously filed testimony on Shoreham Opponents Coalition Contention 9. I have several corrections to the final page of that resume. The reference to the American Society of Mechanical Engineers should be deleted. The reference to the Energy Procedures Committee of the BWR Owners Group should be

changed to make clear that I am a past member of the Emergency (not Energy) Procedures Committee of the BWR Owners Group. I would also like to add that in 1982, I completed all requirements for the senior reactor operator license on Shoreham.

II. NRC REGION I INSPECTION REPORT NO. 82-34

Q. What is the purpose of this testimony?

A. This testimony responds to portions of the following paragraphs in the NRC's Region I Inspection Report No. 82-34 ("I&E Report 82-34"):

¶ 4.2.3.2.1

¶ 4.2.3.3.2

¶ 5.3.1.4

¶ 6.2

¶ 6.4.1

¶ 7.3

¶ 7.4.1

¶ 8.4.1

¶ 8.4.4

¶ 11.3.1

A. Paragraph 4.2.3.2.1

Q. Paragraph 4.2.3.2.1 of I&E Report 82-34 indicates that LILCO senior management has not yet designated an Inservice Inspection (ISI) Agent. Is this true?

A. (Kelly and Muller) No. There was apparently a misunderstanding between the inspector and LILCO's representative. LILCO contracted with Nuclear Energy Services (NES) a number of years ago to develop and implement the Preservice and Inservice Inspection Programs. NES has conducted the Preservice Inspection Program and will conduct the Inservice Inspection Program during operations.

B. Paragraph 4.2.3.3.2

Q. Paragraph 4.2.3.3.2 of I&E Report 82-34 refers to the following QA procedures as involving "the inappropriate use of permissive wording:"

QAP-S-2.1	¶ 5.7.1 ("should" vs. "shall")
QAP-S-16.2	¶¶ 5.3.1, 5.3.4 ("should" vs. "shall")
QAP-S-18.1	¶¶ 5.1.1, 5.6.4 ("should" vs. "shall")
QAP-S-2.2	¶ 5.3.3 ("may" vs. "shall")
QAI-9.2-1	¶ 5.2.2 ("may" vs. "shall")
QAP-S-181	¶ 5.6.2 ("may" vs. "shall")

Have you reviewed each of these procedures to determine whether the use of permissive wording is a violation of any regulatory requirement or FSAR commitment?

A. (Kelly and Muller) Yes. In each instance there was no regulatory requirement or FSAR commitment, or QA Manual commitment, that required use of mandatory language. It was my understanding that the inspector recommended reviewing these examples of permissive language for the purpose of improving clarity, and not because any changes were required by regulation or commitment. Consistent with this is the title of ¶ 4.2.3.3.2 of the I&E Report, "Procedure Clarity."

LILCO has reviewed each of the procedures specifically listed in ¶ 4.2.3.3.2. In some instances LILCO is making a change from permissive to mandatory language for clarity and in some instances there will be no change. Even in those instances where LILCO has decided to make a change, that change will not affect the way the procedure has been interpreted and implemented.

A good example of the response to the comments in ¶ 4.2.3.3.2's is found in LILCO's handling of QAP-S-18.1 ¶¶ 5.1.1 and 5.6.4:

Paragraph 5.1.1 stated:

The audit schedule should include the subject, the organization to be audited, and the month the audit is scheduled.

Mandatory language was not necessary in this procedure because preparation of a schedule without this information is impossible. Nevertheless, LILCO is changing the "should" to "shall" for the sake of clarification.

Paragraph 5.6.4 stated:

If the response(s) to finding(s) are disapproved by OQA another Audit Response Form which indicates the findings requiring satisfactory resolution shall be sent to the audited organization. Subsequent disapproved responses should be handled in the same manner, or by issuing a corrective action.

LILCO is not changing the "should" in the second sentence of the paragraph to "shall." The first sentence of the paragraph adequately specifies the required procedure for handling disapproved responses to findings. In addition, use of the word "shall" precludes the possibility of issuing a LILCO Deficiency Report ("LDR") and would instead require continually repeating the procedure specified in the first sentence of the paragraph. Issuance of an LDR may be necessary to remedy the situation causing disapproval of the responses to the findings.

Q. In addition to referencing some specific procedures, I&E Report 82-34 ¶ 4.2.3.3.2 also states:



The inspector noted that all OQA procedures must be reviewed to determine where revisions are necessary to alleviate the misuse of these two words.

What is LILCO's response?

A. (Kelly and Muller) LILCO has carefully reviewed the use of "should" and "shall" in the past. In response to the NRC's request, however, LILCO OQA personnel are reviewing and will continue to review the OQA procedures and instructions for possible clarity in the use of the words "should," "shall," and "may." In addition, the procedures will be reviewed for proper references and consistency with terms used in QAPs.

If draft revisions are required, they will be distributed for comment to the Plant Manager and the QA Department Manager in accordance with QAP-S-05.2, "Operational Quality Assurance (OQA) Procedure Development." If necessary, the procedures will be revised in accordance with QAP-S-5.2.

Q. Paragraph 4.2.3.3.2 also states:

The procedures did not clearly establish requirements and describe applicable activities in a fashion similar to the QAD procedures and need appropriate revisions.

What is LILCO's response?

A. (Kelly and Muller) This statement does not mean that the OQA procedures do not clearly establish requirements

and describe activities. The statement refers to the fact that the QAP-Ss do not have the same format as the QAPs.

There is no requirement that the QAP-Ss and the QAPs have the same format. In addition, the same format for the two sets of procedures is not always appropriate in light of their different uses and purposes. The QAPs are used by QA Department personnel while the QAP-Ss are used by OQA personnel. The QAPs interface with more corporate organizations than the QAP-Ss. Moreover, the QAP-Ss have been continually reviewed by the QA Department personnel and have been found acceptable with respect to their format and their description of requirements and activities.

Nevertheless, the current review of the procedures is taking this point into account. If clarification is necessary, changes will be made according to proper procedures.

C. Paragraph 5.3.1.4

Q. Paragraph 5.3.1.4 of I&E Report 82-34 states, in part:

The 'summary document' required by ANSI N18.7-1976 paragraph 5.1 to identify and to index source documents to the requirements of the standard was not developed at the time of the inspection by each 'owner organization.'

What is LILCO's position on this matter?

A. (Kelly and Muller) As the LILCO OQA panel previously testified (see Tr. at 15,505, line 7), LILCO considers the QA Manual (attached to LILCO's prefiled testimony on Suffolk County Contentions 12 through 15 as Exhibit A), and specifically Appendix D of that Manual, as a summary document adequate to satisfy the requirements found in ¶ 5.1 of ANSI N18.7. The summary document required by this section does not affect substantive program compliance. Rather, its purpose is to facilitate procedural review.

LILCO believes Appendix D of the QA Manual is adequate to serve this purpose. In the course of discussions with the inspector, however, it became clear that there was a difference of opinion on the meaning of "summary document." In lieu of references to the various types of procedures--Appendix D to the QA Manual--the inspector desired a consolidated matrix of ANSI N18.7's requirements with specific procedure number references.

Q. Although LILCO does not believe it is necessary, will LILCO, nonetheless, prepare a more detailed matrix?

A. (Kelly and Muller) Yes. To promote convenience and clarity LILCO is preparing such a detailed matrix of procedures. This matrix, which should be available for inspection prior to fuel load, will assist the I&E inspectors in

verifying expeditiously the satisfaction of ANSI N18.7's requirements.

D. Paragraph 6.2

Q. Paragraph 6.2 of I&E Report 82-34 provides, in part:

The licensee's program was not in conformance with their commitment to ANSI N45.2.3 in that SP 12.023.01, "Station Housekeeping," had the following deficiencies:

--The procedure did not provide for maintaining records of housekeeping surveillances, as required by ANSI N45.2.3. Further, a licensee representative stated that such records were not being maintained.

--Housekeeping zone figures detailed in Appendices 12.1, 12.2, and 12.3 did not provide sufficient descriptive information to adequately describe the zone requirements pictured.

--Paragraphs 8.3.1, 8.3.2, and 8.3.3 provided specific housekeeping criteria concerning general cleanliness, environmental conditions, and maintenance tools, supplies, and equipment. However, much of this criteria was not included in Appendix 12.5, "Housekeeping Inspection Form SPF-12.023.01-2," causing the form to be deficient in assuring adequate housekeeping inspections.

Was anything done to correct these three deficiencies?

A. (Muller and Steiger) Yes, changes have been made and the matter has been closed by the I&E inspector. These changes are very minor in nature.

With respect to the first listed deficiency, the requirement for maintaining these records has always been contained in SP 12.015.01, "Preventive Maintenance Procedure," and for the sake of clarity, the requirement stated in SP 12.015.01 has been repeated in SP 12.023.01. The housekeeping records are maintained and filed with either the MWR or the PM procedure that generated the record.

With respect to the second listed deficiency, the zone figures existed and adequately showed the zones. Visual perspective of the zone figures was enhanced by the mere addition of a few parallel and dashed lines to clarify their three-dimensional nature. The term "Rope Barrier" was also added in the appropriate place.

With respect to the third listed deficiency, the housekeeping inspection forms were updated by the addition of specific housekeeping criteria already described in ¶¶ 8.3.1, 8.3.2, and 8.3.3 of the procedure. These criteria were already contained in these paragraphs of the procedure notwithstanding the fact that they are not specifically mentioned in ANSI N45.2.3.

#### E. Paragraph 6.4.1

Q. Paragraph 6.4.1 of I&E Report 82-34 listed several purported deficiencies in LILCO's maintenance program procedures. The paragraph also states, in part:

The licensee did not concur with the inspector's findings, stating that the above procedures adequately defined the maintenance program.

Does LILCO still believe that its procedures adequately define the maintenance program?

A. (Muller and Steiger) Yes. The maintenance program complies with ANSI N18.7 ¶¶ 5.1 and 5.2.7.1 by use of the Maintenance Work Requests (MWR) Program, SP 12.013.01. This Program includes detailed maintenance planning allowing evaluation of the use of special processes, when necessary, and the use of proper equipment and materials in performing the necessary tasks. This Program also allows for an assessment of maintenance-related potential hazards to personnel and equipment.

The Program is a computerized, state-of-the-art process, using on-line CRT displays that allow prompt access at various plant locations, including the Control Room. This allows constant monitoring of on-going maintenance activities throughout the plant.

Each safety-related MWR, prior to action, is reviewed by the relevant Section Head, the Watch Engineer, and OQA Engineer. This ensures the use of proper procedures in performing the maintenance.

Q. Turning to the specific deficiencies listed, the first two listed in ¶ 6.4.1 state:

[The procedures] did not adequately define  
. . .:

- (1) Types of documents to be assembled in the work package
- (2) All pre-planning considerations which must be addressed by the maintenance coordinator (e.g., such as pre-planning checklist).

What documentation is assembled and what pre-planning considerations are addressed by the maintenance coordinator prior to maintenance initiation?

A. (Muller and Steiger) Since the MWR is the authorization document, all work procedures, inspections, and permits are assembled with the controlling document.

Step 22 of the MWR form requires the identification of specific work procedures. In addition, the MWR form provides a pre-planning checklist that requires, among other things, step-by-step consideration of procedures, permits, inspections, and tagging that may be required to perform the described maintenance-related task. Qualified maintenance personnel, knowledgeable in both administrative and maintenance procedures and maintenance/repair techniques, engage in this step-by-step process.



In addition, in compliance with SP 12.013.01 the information detailed on the MWR is reviewed by section supervision prior to the assignment of the work. Upon assignment and receipt of the MWR package, the foreman is responsible for reviewing the package and all pertinent data, plans, and schedules. He is also responsible for notifying all relevant sections of the maintenance scheduling and personnel assignments.

OQA reviews this entire process to ensure compliance with both administrative and maintenance procedures. This OQA review is performed for all safety-related MWR's.

Q. The third deficiency listed in ¶ 6.4.1 states:

- (3) [The procedures did not adequately define] the types of maintenance activities which can be performed without a procedure (Although the MWR makes this evaluation, it does not provide a basis on which the decision is made).

What is LILCO's response?

A. (Muller and Steiger) Various maintenance procedures cover both specific and generic maintenance activities. There are also many potential maintenance activities for which it is impossible to have a specific procedure for each activity or to define each activity that may be accomplished without a procedure. Hence, the need for generic procedures. The



enormous number of potential maintenance activities is also the reason for the system to include the flexibility for some activities to be done without a procedure. This practice is consistent with the practice at other licensed and operating plants.

Q. The fifth deficiency listed in ¶ 6.4.1 states:

- (5) [The procedures did not adequately define c]riteria for maintenance of system cleanliness and for cleaning and/or flushing of systems (These criteria are specifically in SP 12.023.02; however the MWR does not refer to this procedure).

How does plant staff control housekeeping and system cleanliness?

A. (Muller and Steiger) SP 12.023.02, "Pressure Boundary Integrity and Cleanliness," defines the criteria for system cleanliness and for cleanliness/flushing. These criteria are ASME requirements. SP 12.023.01, "Station Housekeeping," is a checklist item on the MWR. It is also used to maintain cleanliness and specify cleanliness criteria established by SP 12.023.02.

Q. The last deficiency listed in ¶ 6.4.1 states:

- (6) [The procedures did not adequately define] . . . what documents will be incorporated into the final maintenance activity record (Currently SP 12.013.0 states that

the maintenance record consists of the MWR and associated documents used for performance of the work, but it does not define these documents).

What documentation is incorporated into the final maintenance activity record?

A. (Muller and Steiger) The MWR serves as a guide for the collection of all documents used in performing the work. The documents used to perform the work, defined prior to job initiation, are required by SP 12.013.01 to be included in the final work package. In addition, in accordance with § 10 of SP 12.013.01, support procedures and associated documentation required to complete the maintenance task may be included. In any event, the MWR will reference these procedures.

F. Paragraph 7.3

Q. Paragraph 7.3 of I&E Report 82-34 states, in part:

Operations QA has no direct surveillance test and calibration involvement except to perform audits of the program and its implementation.

Is there any clarification needed for this statement?

A. (Muller) Yes, OQA has responsibilities in addition to its audit responsibility. OQA is responsible for reviewing the surveillance procedures as required by § 5 of the QA Manual, for overseeing the surveillance test program as set

forth in the OQA surveillance schedule, and for witnessing selected surveillance testing.

G. Paragraph 7.4.1

Q. Paragraph 7.4.1 of I&E Report 82-34 states, in part:

Additionally, I&C does extensive troubleshooting, but there are not procedural definitions as to when corrective maintenance procedures must be used and when troubleshooting without a procedure can be performed.

Is there a mechanism for determining when troubleshooting without a specific procedure is permissible?

A. (Gunther) Troubleshooting is covered by a MWR. Because there are so many variables in determining whether corrective maintenance procedures are applicable to troubleshooting situations, the initial judgment is left to plant supervision. If troubleshooting is done without a procedure, however, it will be reviewed by plant supervision prior to final approval of the MWR.

Q. Paragraph 7.4.1 of I&E Report 82-34 also states, in part:

[M]any activities performed by I&C are not defined in the procedure. Based on the above, the inspector considered the activities specified in procedures SP 12.003.01 and 12.013.01 inadequate to define the overall I&C program.

Does LILCO agree with this comment?

A. (Gunther) No. The activities are so numerous that it would be impossible to define each one separately. Instead, SP 12.003.01 defines the responsibilities of the I&C Section by specifying the duties of the I&C Engineer. While specific activities are not listed, the procedure clearly indicates that all activities associated with the calibration, repair, and testing of any station instrumentation and controls are the responsibility of the I&C Engineer. In addition, other procedures, job descriptions, and corporate position analysis help define the I&C program.

H. Paragraph 8.4.1

Q. Paragraph 8.4.1 of I&E Report 82-34 states, in part:

During review of SP 41.003.01, "Control of I&C Measuring and Test Equipment," the inspector determined that this procedure did not address many activities actually being performed for control of M&TE.

Is this true and, if so, does LILCO plan to make any changes to the procedure?

A. (Gunther) Yes, the statement is true. The experience gained during the time that the M&TE Program has been in effect has resulted in minor changes in the Program's

implementation that have improved the overall quality of the Program. Each specific change in implementation was not recorded in a revision to SP 41.003.01 since the overall philosophy and guidance of the procedure was not altered.

As a result of discussions with the inspector, LILCO has agreed to document these improved practices in SP 41.003.01. These changes may provide assistance to future personnel involved with the M&TE Program.

#### I. Paragraph 8.4.4

Q. Paragraph 8.4.4 of I&E Report 82-34 states, in part, that "[t]he M&TE calibration laboratory and work shop appeared to have inadequate housekeeping and work practices." What is LILCO's response?

A. (Gunther) At the time of inspection, the laboratory visited by the inspector was undergoing physical expansion. This expansion, requiring the cutting of an opening three feet in width through a cinder block wall, resulted in an unusual amount of dust. In addition, the expansion necessarily caused the room to be in some disarray. Immediate steps were taken to clean the shop and reorganize the furniture. A regular cleaning schedule has been established to ensure continued cleanliness.

Work practices did not deteriorate during the expansion of the calibration laboratory. As the inspector noted, proper calibration techniques are utilized by qualified personnel with calibration standards traceable to the National Bureau of Standards. See I&E Report ¶ 8.3.2.5.

Q. Are there any procedures or provisions for segregating out-of-service M&TE from in-use M&TE?

A. (Gunther) SP 41.003.01 ¶ 8.4.1 states that whenever M&TE requires repair or has exceeded its calibration due date, it is tagged "DO NOT USE." This tagged M&TE is stored on a shelf that is outlined in red, tagged "DO NOT USE," and designated for storage of out-of-service M&TE. Some instruments, however, do not fit on this shelf. These instruments are prominently marked with a "DO NOT USE" tag.

Q. Are there any provisions or procedures for dust protection?

A. (Gunther) Yes. Instruments requiring dust protection are segregated from the shop environment. For example, dead weight tester weights are stored in separate metal boxes. Of course, not all instruments require dust protection. For example, electronic standards and test gauges do not require this special protection.



Q. Are environmental conditions such as temperature and humidity monitored?

A. (Gunther) Yes. A 24-hour circular chart monitors and records the temperature and humidity in the M&TE shop. The ventilation system supplying the M&TE shop is part of the Office and Service Building system that is maintained at proper temperature and humidity levels. In addition, a separate air conditioning unit, supplying the M&TE room only, maintains environmental control of the room.

J. Paragraph 11.3.1

Q. Paragraph 11.3.1 of I&E Report 82-34 states, in part:

The inspector determined that Appendix D, "LILCO Quality Related Documents--Control Responsibilities," of the QA manual did not include the station OQA Engineer in the review cycle for station procedures and special test procedures.

Is this true?

A. (Kelly and Muller) Yes, Appendix D did not specifically name the OQA Engineer in the review cycle. As the LILCO OQA panel has previously testified, however, and as shown the draft Shoreham technical specifications, the OQA Engineer is a member of the Review of Operations Committee. See Tr. at 12,620, lines 15 through 19. As such, he necessarily reviews all safety-related safety procedures.

Q. Therefore, was the OQA Engineer in fact reviewing the appropriate procedures as a procedurally required reviewer?

A. (Kelly and Muller) Yes, in accordance with SP 12.006.01 and QAP-S-05.4.

Q. Did LILCO nonetheless make the requested change in Appendix D?

A. (Kelly and Muller) Yes, LILCO has added the OQA Engineer to the review column of the table in Appendix D. This change was made for the sake of clarification and has no effect whatsoever on the existing review cycle for procedures and requirements. The OQA Engineer has always been part of that process. The I&E inspector has closed out this item.



CERTIFICATE OF SERVICE

83 JAN 12 10:50

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

U.S. SERVICE  
BRANCH

I hereby certify that copies of TESTIMONY OF WILLIAM E. GUNTHER, JOSEPH M. KELLY, ARTHUR R. MULLER AND WILLIAM STEIGER ON PORTIONS OF SUFFOLK COUNTY CONTENTION 13 REGARDING REGION I INSPECTION REPORT NO. 82-34 were served upon the following by first-class mail, postage prepaid, by Federal Express (as indicated by an asterisk), or by hand (as indicated by two asterisks), on:

Lawrence Brenner, Esq.\*\*  
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  
Board Panel  
U.S. Nuclear Regulatory  
Commission  
Washington, D.C. 20555

Dr. James H. Carpenter\*\*  
Administrative Judge  
Atomic Safety and Licensing  
Board Panel  
U.S. Nuclear Regulatory  
Commission  
Washington, D.C. 20555

Secretary of the Commission  
U.S. Nuclear Regulatory  
Commission  
Washington, D.C. 20555

Atomic Safety and Licensing  
Appeal Board Panel  
U.S. Nuclear Regulatory  
Commission  
Washington, D.C. 20555

Atomic Safety and Licensing  
Board Panel  
U.S. Nuclear Regulatory  
Commission  
Washington, D.C. 20555

Daniel F. Brown, Esq.  
Attorney  
Atomic Safety and Licensing  
Board Panel  
U.S. Nuclear Regulatory  
Commission  
Washington, D.C. 20555

Bernard M. Bordenick, Esq.\*\*  
David A. Repka, Esq.  
U.S. Nuclear Regulatory  
Commission  
Washington, D.C. 20555

Herbert H. Brown, Esq.\*\*  
Lawrence Coe Lanpher, Esq.  
Karla J. Letsche, Esq.  
Kirkpatrick, Lockhart, Hill,  
Christopher & Phillips  
8th Floor  
1900 M Street, N.W.  
Washington, D.C. 20036

Mr. Mark W. Goldsmith  
Energy Research Group  
4001 Totten Pond Road  
Waltham, Massachusetts 02154

MHB Technical Associates  
1723 Hamilton Avenue  
Suite K  
San Jose, California 95125

Mr. Jay Dunkleberger  
New York State Energy Office  
Agency Building 2  
Empire State Plaza  
Albany, New York 12223

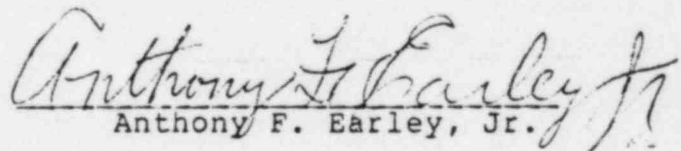
David J. Gilmartin, Esq.  
Attn: Patricia A. Dempsey, Esq.  
County Attorney  
Suffolk County Department of Law  
Veterans Memorial Highway  
Hauppauge, New York 11787

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

Ralph Shapiro, Esq.\*  
Cammer and Shapiro, P.C.  
9 East 40th Street  
New York, New York 10016

Howard L. Blau, Esq.  
217 Newbridge Road  
Hicksville, New York 11801

Matthew J. Kelly, Esq.  
State of New York  
Department of Public Service  
Three Empire State Plaza  
Albany, New York 12223

  
Anthony F. Earley, Jr.

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

DATED: January 10, 1983