

HUNTON & WILLIAMS

707 EAST MAIN STREET

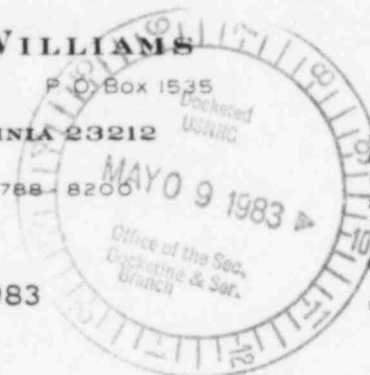
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FILE NO.
DIRECT DIAL NO. 804 788-

May 4, 1983

Lawrence Brenner, Esq.
Administrative Judge
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

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

Dr. Peter A. Morris
Administrative Judge
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Gentlemen:

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

Pursuant to the Board's request at Tr. 20,361, we report that LILCO's schedule for the completion of Shoreham continues to indicate that the plant will be physically ready to load fuel by August 1983.

Accompanying this letter are updated copies of Appendices B to E of LILCO's proposed partial initial decision of January 17, 1983.

Very truly yours,

W. Taylor Reveley, III

cc: All Parties

8305100391 830504
PDR ADOCK 05000322
6 PDR

DS03

5/4/82-4/8/83

APPENDIX B:
SEQUENCE OF SETTLEMENTS



	Witness (Party)	Date Settlement Accepted by Board	Begins at Transcript
1. <u>Dirt in Diesel Generator Relays</u> SC 2	McCaffrey (LILCO) Giardina (NRC) Goldsmith (SC)	5/7/82	1626
2. <u>Fire Protection</u> SC 17	McCaffrey (LILCO) Eberly (NRC) Capstick (SC)	5/7/82	1626
3. <u>Turbine Orientation</u> SOC 19(j)	Kascsak (LILCO) Schiffgens (NRC)	5/7/82	1626
4. <u>Clad Swelling and Flow Blockage</u> SOC 16	Hill (LILCO) Meyer (NRC)	6/11/82 7/22/82	4305 7872
5. <u>Iodine Monitoring</u> SC 28(a)(iii)/SOC 7A(3); SC 27(c)/SOC 3(c)	Schmitt (LILCO) Chandrasekaran (NRC) Minor (SC)	6/15/82	4329
6. <u>SPDS</u> SC 28(a)(iv)/SOC 7A(4)	Price (LILCO) Eckenrode (NRC) Minor (SC)	7/8/82	6038
7. <u>Notice of Disabled Safety System</u> SOC 9	Steiger (LILCO) Mauck (NRC)	8/5/82	9138
8. <u>ECCS Cutoff</u> SC 28 (a)(i)/ SOC 7A(1)	Stark (LILCO) Hodges (NRC) Minor (SC) Bridenbaugh (SC)	8/5/82	9138

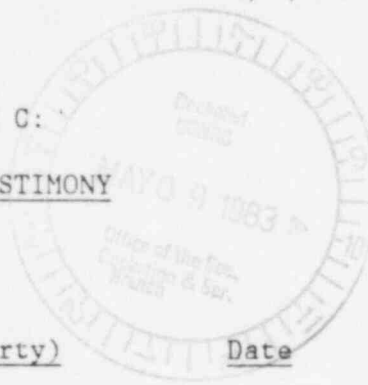
	<u>Witness (Party)</u>	<u>Date Settlement Accepted by Board</u>	<u>Begins at Transcript</u>
9. <u>ECCS Pump Blockage</u> <u>SC 9</u>	Kascsak (LILCO) Hodges (NRC) Goldsmith (SC)	8/25/82	9502
10. <u>Human Factors --</u> <u>Procedures</u> <u>SC 19</u>	Notaro (LILCO) Clifford (NRC) Eckenrode (NRC) Rivenbark (NRC) Goldsmith (SC) Ball (SC) Crosse (SC) Mazour (SC)	10/14/82	11,677
11. <u>Human Factors --</u> <u>Simulator</u> <u>SC 20</u>	Bengston (LILCO) Rottkamp (LILCO) Deliso (NRC)	10/14/82	11,677
12. <u>RPV Integrity</u> <u>and Testing</u> <u>SC 25/SOC 19(a)</u>	Barry (LILCO) Ranganath (LILCO) Seaman (LILCO) Hazelton (NRC) Cheng (NRC) Hum (NRC) Smith (NRC) Walton (NRC) Hinson (NRC) Bridenbaugh (SC)	10/14/82	11,677
13. <u>ALARA</u> <u>SC 26</u>	Fortier (LILCO) Miele (LILCO) Hinson (NRC) Wing (NRC) Goldsmith (SC) Bridenbaugh (SC) Barlit (SC)	10/14/82	11,677
14. <u>Post Accident</u> <u>Monitoring</u> <u>SC 27/SOC 3</u> <u>(Partially</u> <u>Settled)</u>	Rigert (LILCO) Mauck (NRC) Hubbard (SC) Minor (SC)	10/14/82	11,677

<u>Witness (Party)</u>	<u>Date Settlement Accepted by Board</u>	<u>Begins at Transcript</u>
15. Phase I Emergency <u>Planning</u> SC/SOC/NSC 1-14 (Partially Settled)		
<u>Effect of Weather on Sirens</u> EP 1(A)	11/23/82	14,719
<u>Federal Resources</u> EP 3	11/23/82	14,719
<u>Notification with Emergency Classification</u> EP 5(C)	11/23/82	14,719
<u>Training of Offsite Agencies</u> EP 6	11/23/82	14,719
<u>Emergency Director and Response Manager</u> EP 7(A)	11/23/82	14,719
<u>Emergency Operations Facility</u> EP 8	11/23/82	14,719
<u>Radiological Exposure</u> EP 9	11/23/82	14,719
<u>Field Monitoring</u> EP 10(A)	11/23/82	14,719
<u>Redundant Power Supplies</u> EP 11(D)	11/23/82	14,719

	<u>Witness (Party)</u>	<u>Date Settlement Accepted by Board</u>	<u>Begins at Transcript</u>
<u>Communications through Beepers</u> EP 11(E)		11/23/82	14,719
<u>NAWAS</u> EP 11(F)		11/23/82	14,719
<u>Personnel Assignments:</u> <u>A. Number of</u> <u>Personnel in EOF</u> EP 12(A)		11/23/82	14,719
16. <u>Security Planning</u> SC Security 1-9		12/3/82	--
17. <u>Loose Parts</u> <u>Monitoring</u> SC 5	Price (LILCO) Hsui (NRC) Goldsmith (SC)	12/7/82	15,480
18. <u>Human Factors --</u> <u>Equipment</u> SC 18	Poltrino (LILCO) Eckenrode (NRC) Goldsmith (SC) Minor (SC)	12/7/82	15,481
19. <u>Remote Shutdown</u> <u>Panel</u> SC 1		12/21/82	17,198
20. <u>Inadequate</u> <u>Core Cooling</u> SC 3 and 27(k)/ SC 3(k) and 8	Hill (LILCO) Rigert (LILCO) Sun (NRC) Goldsmith (SC) Minor (SC)	12/22/82	17,519
21. <u>Electrical Separation</u> SC 31/SOC 19(g)	McCaffrey (LILCO) Eberly (NRC) Knox (NRC) Mauck (NRC) Hubbard (SC) Minor (SC)	1/12/83 (Amendment) 1/19/83 (Agreement)	17,818 18,596

	<u>Witness (Party)</u>	<u>Date Settlement Accepted by Board</u>	<u>Begins at Transcript</u>
22. <u>Cracking of Materials</u> SC 24/SOC 19(c) and (d)	Kascsak (LILCO) Smith (NRC) Anderson (SC) Bridenbaugh (SC)	1/19/83	18,597
23. <u>Environmental Qualification</u> SC 8/SOC 19(h) (Partially Settled)	Etzweiler (LILCO) Gleason (LILCO) Kascsak (LILCO) Najuch (LILCO) Shosho (LILCO) Woodward (LILCO) Kennedy (NRC) Noonan (NRC) Minor (SC)	1/26/83	19,299
24. <u>Seismic Qualification</u> SOC 19(i)		1/26/83	19,299
25. <u>Containment Isolation</u> SC 23		2/24/83	20,311
26. <u>Electrical Penetration</u> SC 32/SOC 19(f)		2/24/83	20,311
27. <u>Quality Assurance -- Operations</u> SC 13(d)	Alexander (LILCO) Arrington (LILCO) Baldwin (LILCO) Burns (LILCO) Eifert (LILCO) Gerecke (LILCO) Kelly (LILCO) Long (LILCO) Muller (LILCO) Museler (LILCO) Youngling (LILCO) Gallo (NRC) Gilray (NRC) Higgins (NRC) Narrow (NRC) Riverbark (NRC) Hubbard (SC)	4/8/83	21,000

APPENDIX C:
SEQUENCE OF TESTIMONY



	<u>Witness (Party)</u>	<u>Date</u>	<u>Begins at Transcript</u>
1. <u>Safety Classification and Systems Interaction</u> SC/SOC 7B and SOC 19(b)	Goldsmith (SC/SOC)	5/4/82	1104
		4/7/83	20882
	Harwood (SC/SOC)	5/4/82	1104
	Hubbard (SC/SOC)	5/4/82	1104
		4/7/83	20882
	Minor (SC/SOC)	5/4/82	1104
		4/7/83	20882
	Burns (LILCO)	6/15/82	4340
		6/25/82	5632
	Dawe (LILCO)	6/15/82	4340
		4/8/83	21035
	Garabedian (LILCO)	6/15/82	4340
	Ianni (LILCO)	6/15/82	4340
	Joksimovich (LILCO)	6/15/82	4340
		6/25/82	5632
	Kascsak (LILCO)	6/15/82	4340
		6/25/82	5632
	McGuire (LILCO)	6/15/82	4340
	Rigelhaupt (LILCO)	6/15/82	4340
	Robare (LILCO)	6/15/82	4340
	Roths (LILCO)	6/17/82	4576
	Pollock (LILCO)	4/8/83	21035
	Rivello (LILCO)	4/8/83	21035
	McCaffrey (LILCO)	4/8/83	21035
	Museler (LILCO)	4/8/83	21035
	Speis (NRC)	7/9/82	6347
	Haass (NRC)	7/9/82	6347
	Rossi (NRC)	7/9/82	6347
		4/7/83	20807
	Conran (NRC)	7/9/82	6347
		4/5/83	20394
	Hodges (NRC)	7/9/82	6347
	Kirkwood (NRC)	7/9/82	6347
Thadani (NRC)	7/13/82	6452	
	7/21/82	7436	
	4/7/83	20807	
Coffman (NRC)	4/7/83	20807	
Mattson (NRC)	4/7/83	20807	
Vollmer (NRC)	4/7/83	20807	
2. <u>Water Hammer</u> SC 4	Fortier (LILCO)	5/25/82	1933
	Hill (LILCO)	5/25/82	1933
	Hodges (NRC)	5/25/82	1933
	Goldsmith (SC)	5/27/82	2377

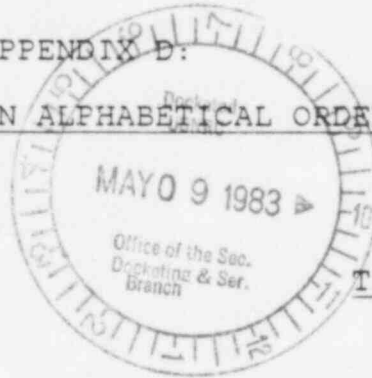
	<u>Witness (Party)</u>	<u>Date</u>	<u>Begins at Transcript</u>
3. <u>ECCS Core Spray</u> SC 10	Hill (LILCO)	5/28/82	2523
	Sun (NRC)	5/28/82	2523
4. <u>Loose Parts Monitoring</u> SC 5	Price (LILCO)	6/1/82	2691
	Hsii (NRC)	6/1/82	2691
	Goldsmith (SC)	6/3/82	3176
5. <u>Valve Failure</u> SC 11	Bridenbaugh (SC)	6/4/82	3540
	Minor (SC)	6/4/82	3541
		6/8/82	3685
	Fortier (LILCO)	6/8/82	3626
			3739
	Kreps (LILCO)	6/8/82	3626
			3739
	Kirkwood (NRC)	6/8/82	3739
6. <u>Seismic Design</u> SOC 19(e)	Lucks (LILCO)	6/9/82	3966
	Kim (NRC)	6/9/82	3966
	Rothman (NRC)	6/9/82	3966
	Wong (LILCO)	6/9/82	3966
7. <u>SRV Tests and Challenges</u> SC/SOC 22; SC 28 (a)(vi)/SOC 7A(6)	Crawford (LILCO)	7/27/82	7949
	Smith (LILCO)	7/27/82	7949
	Stark (LILCO)	7/27/82	7949
	Boseman (LILCO)	7/27/82	7949
	Hayes (LILCO)	7/27/82	7949
	Kreps (LILCO)	7/27/82	7949
	Malovrh (LILCO)	7/27/82	7949
	Wright (NRC)	7/27/82	7963
	Hodges (NRC)	7/27/82	7963
	Cherny (NRC)	7/27/82	7963
	Bridenbaugh (SC)	8/3/82	8702
	Minor (SC)	8/3/82	8702
8. <u>ATWS</u> SC 16	Calone (LILCO)	8/4/82	8906
	Carter (LILCO)	8/4/82	8906
	Eckert (LILCO)	8/4/82	8906
	Pfefferlen (LILCO)	8/4/82	8906
	Rigert (LILCO)	8/4/82	8906
	Sullivan (LILCO)	8/4/82	8906
	Hodges (NRC)	8/4/82	8906

	<u>Witness (Party)</u>	<u>Date</u>	<u>Begins at Transcript</u>
9. <u>Post Accident Monitoring</u> SC 27/SOC 3	Baron (LILCO)	8/24/82	9451
	Kreps (LILCO)	8/24/82	9451
	Rigert (LILCO)	8/24/82	9451
	Schmitt (LILCO)	8/24/82	9451
	Mauck (NRC)	8/24/82	9451
	Rossi (NRC)	8/24/82	9451
	Minor (SC)	8/25/82	9579
10. <u>Mark II</u> SC 21	Chau (LILCO)	8/26/82	9729
	Davis (LILCO)	8/26/82	9729
	Malovrh (LILCO)	8/26/82	9729
	Metcalf (LILCO)	8/26/82	9729
	Townsend (LILCO)	8/26/82	9729
	Eltawila (NRC)	8/26/82	9729
	Fields (NRC)	8/26/82	9729
	Tan (NRC)	8/26/82	9729
11. <u>Quality Assurance</u> SC/SOC 12, SC 13-15	Alexander (LILCO)	9/14/82	10075
		11/17/82	14315
	Arrington (LILCO)	9/14/82	10075
		2/22/83	19748
	Baldwin (LILCO)	9/14/82	10075
		11/9/82	13292
	Burns (LILCO)	9/14/82	10075
		10/14/82	11709
		10/29/82	12405
		11/9/82	13292
	Eifert (LILCO)	9/14/82	10075
		11/9/82	13292
	Gerecke (LILCO)	9/14/82	10075
		11/9/82	13292
	Kelly (LILCO)	9/14/82	10075
		11/9/82	13292
		11/11/82	13686
		2/22/83	19748
	Kubinak (LILCO)	11/17/82	14315
	Long (LILCO)	9/14/82	10075
		10/12/82	11365
		11/9/82	13292
McCaffrey (LILCO)	11/17/82	14315	
Muller (LILCO)	9/14/82	10075	
	9/17/82	10488	
	9/22/82	10795	
	9/24/82	11191	
	11/2/82	12587	

	<u>Witness (Party)</u>	<u>Date</u>	<u>Begins at Transcript</u>
		11/12/82	13953
	Museler (LILCO)	9/14/82	10075
		10/28/82	12236
		11/9/82	13292
		2/22/83	19748
	Youngling (LILCO)	9/14/82	10075
		9/22/82	10893
		11/2/82	12587
		11/12/82	13953
	Hubbard (SC)	12/2/82	15224
		1/25/83	19062
	Gallo (NRC)	12/14/82	16238
	Gilray (NRC)	12/14/82	16238
		2/23/83	20141
	Higgins (NRC)	12/14/82	16238
		2/22/83	19748
	Narrow (NRC)	12/14/82	16238
	Rivenbark (NRC)	12/14/82	16238
	Johnson (LILCO)	1/10/83	17586
	Novarro (LILCO)	1/10/83	17586
	Samaniego (SC)	1/25/83	19062
	Greenman (NRC)	2/22/83	19748
	Caphton (NRC)	2/23/83	20141
12. Environmental	Etzweiler (LILCO)	1/26/83	19301
<u>Qualification</u>	Gleason (LILCO)	1/26/83	19301
SC 8/SOC 19(h)	Kascsak (LILCO)	1/26/83	19301
	Najuch (LILCO)	1/26/83	19301
	Shosho (LILCO)	1/26/83	19301
	Woodward (LILCO)	1/26/83	19301
	Kennedy (NRC)	1/26/83	19309
	Noonan (NRC)	1/26/83	19309
	Minor (SC)	1/31/83	19665

APPENDIX D:

WITNESSES IN ALPHABETICAL ORDER



Witness

Following
Transcript Page

Alexander, John F.

"Testimony of John F. Alexander,
T. Tracy Arrington, Frederick B.
Baldwin, Robert G. Burns, William
F. Eifert, T. Frank Gerecke, Joseph
M. Kelly, Donald G. Long, Arthur R.
Muller, William J. Museler, and
Edward J. Youngling for the Long
Island Lighting Company Regarding
Suffolk County and Shoreham
Opponents Coalition Contention 12 and
Suffolk County Contentions 13, 14,
and 15"

10,080
[Not Bound In]
[LILCO Ex. 21]

Arrington, T. Tracy

"Testimony of John F. Alexander,
T. Tracy Arrington, Frederick B.
Baldwin, Robert G. Burns, William
F. Eifert, T. Frank Gerecke, Joseph
M. Kelly, Donald G. Long, Arthur R.
Muller, William J. Museler, and
Edward J. Youngling for the Long
Island Lighting Company Regarding
Suffolk County and Shoreham
Opponents Coalition Contention 12 and
Suffolk County Contentions 13, 14,
and 15"

10,080
[Not Bound In]
[LILCO Ex. 21]

"Supplemental Testimony of Messrs.
Museler, Arrington, and Kelly
Concerning I&E Inspection Report
No. 50-322/83-02"

19,757

WitnessFollowing
Transcript PageBaldwin, Frederick B.

"Testimony of John F. Alexander, T. Tracy Arrington, Frederick B. • Baldwin, Robert G. Burns, William F. Eifert, T. Frank Gerecke, Joseph M. Kelly, Donald G. Long, Arthur R. Muller, William J. Museler, and Edward J. Youngling for the Long Island Lighting Company Regarding Suffolk County and Shoreham Opponents Coalition Contention 12 and Suffolk County Contentions 13, 14, and 15"	10,080 [Not Bound In] [LILCO Ex. 21]
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Baron, Joseph S.

"Professional Qualifications"	9455
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Boseman, John J.

"LILCO's Motion to Join J. J. Boseman and C. A. Malovrh with R. M. Crawford, J. L. Smith and S. J. Stark to Support LILCO's Testimony on SC/SOC Contention 22-- SRV Tests"	7954
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"Professional Qualifications"	7954
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"Testimony of John J. Boseman, Raymond M. Crawford, Fred Hayes, John J. Kreps, and Jeffrey L. Smith for the Long Island Lighting Company on Suffolk County Contention 28a(vi) and SOC Contention 7A(6) -- Reduction of Challenges to SRV's"	7959
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"Supplemental Testimony of Jeffrey L. Smith, John J. Boseman and Richard Gutmann Concerning Maintenance of Safety/Relief Valves at Shoreham Nuclear Station"	15,506 [Not Bound In] [LILCO Ex. 46]
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WitnessFollowing
Transcript Page

"Supplemental Testimony of
John J. Boseman on Behalf
of Long Island Lighting
Company Concerning Polymeriza-
tion of SRV Lubricants"

15,506
[Not Bound In]
[LILCO Ex. 47]

"Further Supplemental Testimony
of John J. Boseman on Behalf
of Long Island Lighting
Company Concerning Polymerization
of SRV Lubricants"

15,506
[Not Bound In]
[LILCO Ex. 48]

Bridenbaugh, Dale G.

"Professional Qualifications
of Dale G. Bridenbaugh"

3543

"Prepared Direct Testimony of
Dale G. Bridenbaugh and Gregory
C. Minor on Behalf of Suffolk
County Regarding Suffolk County
Contention 11, Passive Mechanical
Valve Failure"

3545

"Prepared Direct Testimony of
Dale G. Bridenbaugh and Gregory
C. Minor on Behalf of Suffolk
County Regarding Suffolk County
Contention 22, SRV Test Program"

8704

"Prepared Direct Testimony of
Dale G. Bridenbaugh and Gregory
C. Minor on Behalf of Suffolk
County Regarding Suffolk County
Contention 28(a)(vi) and SOC
Contention 7A(6), Reduction of
SRV Challenges"

8709

WitnessFollowing
Transcript PageBurns, Edward T.

"Testimony of Edward T. Burns,
George F. Dawe, George Garabedian,
Pio W. Ianni, Vojin Joksimovich,
Robert M. Kascsak, Paul J. McGuire,
Paul W. Rigelhaupt and David J.
Robare for the Long Island Lighting
Company Regarding Suffolk County/
Shoreham Opponents Coalition
Contention 7B and Shoreham
Opponents Coalition Contention
19(b)"

4346

Burns, Robert G.

"Testimony of John F. Alexander,
T. Tracy Arrington, Frederick B.
Baldwin, Robert G. Burns, William
F. Eifert, T. Frank Gerecke, Joseph
M. Kelly, Donald G. Long, Arthur R.
Muller, William J. Museler, and
Edward J. Youngling for the Long
Island Lighting Company Regarding
Suffolk County and Shoreham
Opponents Coalition Contention 12 and
Suffolk County Contentions 13, 14,
and 15"

10,080
[Not Bound In]
[LILCO Ex. 21]

Calone, Leonard J.

"Testimony of Leonard J. Calone,
Harry T. Carter, Eugene C. Eckert,
Henry C. Pfefferlen, John A. Rigert
and William P. Sullivan for Long
Island Lighting Company on Suffolk
County Contention 16--ATWS"

8870

Caphton, Donald L.

"Donald L. Caphton, Professional
Qualification, Region I, U.S.
Nuclear Regulatory Commission"

20,148

WitnessFollowing
Transcript PageCarter, Harry T.

"Testimony of Leonard J. Calone,
Harry T. Carter, Eugene C. Eckert,
Henry C. Pfefferlen, John A. Rigert
and William P. Sullivan for Long
Island Lighting Company on Suffolk
County Contention 16--ATWS"

8870

Chau, Hancock

"Testimony of Hancock Chau,
Charles A. Malovrh and William
M. Davis for the Long Island
Lighting Company on Suffolk
County Contention 21--Marx II
Containment"

9735

"Professional Qualifications"

9735

Cherny, Frank C.

"NRC Staff Motion To Supplement
The Witness Panel On S/RV Contentions"

7967

"Frank C. Cherny -- Professional
Qualifications"

7967

Coffman, Jr., Franklin D.

"NRC Staff Supplemental Testi-
mony on Contention 7B By
Roger J. Mattson, Richard H.
Vollmer, Charles E. Rossi,
Ashok C. Thadani and Franklin D.
Coffman, Jr."

20,810

WitnessFollowing
Transcript PageConran, Sr., James H.

"NRC Staff Testimony of Themis P. Speis, Walter P. Haass, Marvin W. Hodges, C. E. Rossi, James H. Conran, Sr. and Robert Kirkwood on Safety Classification and Analysis of Structures, Systems and Components (SC/SOC Contention 7B) (SOC Contention 19(b))" 6357

"NRC Staff Testimony of James H. Conran, Sr. in Rebuttal to Applicant's Testimony on Safety Classification and Analysis of Structures, Systems and Components (SC/SOC Contention 7B) (SOC Contention 19(b))" 6368

"Affidavit of James H. Conran" 20,401

Crawford, Raymond M.

"Testimony of Raymond M. Crawford, Jeffrey L. Smith and Steven J. Stark for the Long Island Lighting Company on Suffolk County and SOC Contention 22 -- SRV Test Program" 7954

"Testimony of John J. Boseman, Raymond M. Crawford, Fred Hayes, John J. Kreps, and Jeffrey L. Smith for the Long Island Lighting Company on Suffolk County Contention 28a(vi) and SOC Contention 7A(6) -- Reduction of Challenges to SRV's" 7959

WitnessFollowing
Transcript PageDavis, William M.

"Testimony of Hancock Chau,
Charles A. Malovrh and William
M. Davis for the Long Island
Lighting Company on Suffolk
County Contention 21--Mark II
Containment" 9735

"Professional Qualifications" 9735

Dawe, George F.

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Fields, Mel B.

"NRC Staff Testimony of Farouk
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"Supplemental NRC Staff
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Robare for the Long Island Lighting
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Gerecke, T. Frank

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Gilray, John William

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Gleason, James F.

"Testimony of Robert M. Kascsak,
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Haass, Walter P.

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"Qualifications and Experience
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"Supplemental NRC Staff
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"Prepared Direct Testimony of
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Robare for the Long Island Lighting
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Kascsak, Robert M.

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Robare for the Long Island Lighting
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"Prepared Direct Testimony of
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"Prepared Direct Testimony of
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Najuch, Robert J.

"Testimony of Robert M. Kascsak,
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Narrow, Lewis

"NRC Staff Testimony of
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Transcript PageShosho, William R.

"Testimony of Robert M. Kascsak,
Joan F. Etzweiler, James F.
Gleason, Robert J. Najuch,
William R. Shosho, and Newell
K. Woodward for the Long Island
Lighting Company on SC
Contention 8/SOC Contention
19(h) -- Environmental Qualification"

19,305

Smith, Jeffrey L.

"Testimony of Raymond M. Crawford,
Jeffrey L. Smith and Steven J. Stark
for the Long Island Lighting Company
on Suffolk County and SOC Contention
22--SRV Test Program" and
"Professional Qualifications"

7954

"Testimony of John J. Boseman,
Raymond M. Crawford, Fred
Hayes, John J. Kreps, and
Jeffrey L. Smith for the Long
Island Lighting Company on
Suffolk County Contention
28a(vi) and SOC Contention
7A(6) -- Reduction of Challenges
to SRV's"

7959

"Supplemental Testimony of
Jeffrey L. Smith, John J.
Boseman and Richard
Gutmann Concerning Maintenance
of Safety/Relief Valves at
Shoreham Nuclear Station"

15,506
[Not Bound In]
[LILCO Ex. 46]

Speis, Themis P.

"NRC Staff Testimony of Themis
P. Speis, Walter P. Haass,
Marvin W. Hodges, C. E. Rossi,
James H. Conran, Sr. and Robert
Kirkwood on Safety Classification
and Analysis of Structures, Systems
and Components (SC/SOC Contention

6357

WitnessFollowing
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7B) (SOC Contention 19(b))"

Stark, Steven J.

"Testimony of Raymond M. Crawford,
Jeffrey L. Smith and Steven J. Stark
for the Long Island Lighting Company
on Suffolk County and SOC Contention
22 -- SRV Test Program" and
"Professional Qualifications"

7954

Sullivan, William P.

"Testimony of Leonard J. Calone,
Harry T. Carter, Eugene C. Eckert,
Henry C. Pfefferlen, John A. Rigert
and William P. Sullivan for Long
Island Lighting Company on Suffolk
County Contention 16--ATWS"

8870

Sun, Summer B.

"NRC Staff Testimony of Summer
B. Sun on ECCS Core Spray (Suffolk
County Contention 10)"

2527

Tan, Chen P.

"NRC Staff Testimony of Farouk
Eltawila, Mel B. Fields, and
Chen P. Tan on Mark II Contain-
ment (Suffolk County Contention
21)," professional qualifications,
and portions of SER and SER
Supplements that pertain to this
contention

9741

"Supplement 3 to SER, Shoreham
Unit 1, Docket No. 50-322,"
Section 3.8.1 and 3.8.2

9924

Terao, David

"NRC Staff Motion to Supplement
the Witness Panel on Suffolk
County Contention 21"

9741

WitnessFollowing
Transcript Page

"David Terao-Professional
Qualifications"

9741

Thadani, Ashok C.

"Professional Qualifications"

6453

"NRC Staff Supplemental Testimony
on Contention 7B By Roger J.
Mattson, Richard H. Vollmer,
Charles E. Rossi, Ashok C. Thadani
and Franklin D. Coffman, Jr."

20,810

Townsend, Harold E.

"Professional Qualifications"

9735

Vollmer, Richard H.

"NRC Staff Supplemental Testimony
on Contention 7B By Roger J.
Mattson, Richard H. Vollmer,
Charles E. Rossi, Ashok C. Thadani
and Franklin D. Coffman, Jr."

20,810

Woodward, Newell K.

"Testimony of Robert M. Kascsak,
Joan F. Etzweiler, James F.
Gleason, Robert J. Najuch,
William R. Shosho, and Newell
K. Woodward for the Long Island
Lighting Company on SC
Contention 8/SOC Contention
19(h) -- Environmental Qualification"

19,305

Wong, Albert Yao Chee

"Testimony of Albert Yao
Chee Wong for the Long Island
Lighting Company on SOC Conten-
tion 19(e) -- Seismic Design"

3970

Witness

Following
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Wright, Robert J.

"NRC Staff Testimony of
Robert J. Wright Relative
to Performance Testing of
Safety/Relief Valves Required
By Item II.D.1 of NUREG-0737
(SC Contenton 22)"

7964

Youngling, Edward J.

"Testimony of John F. Alexander,
T. Tracy Arrington, Frederick B.
Baldwin, Robert G. Burns, William
F. Eifert, T. Frank Gerecke, Joseph
M. Kelly, Donald G. Long, Arthur R.
Muller, William J. Museler, and
Edward J. Youngling for the Long
Island Lighting Company Regarding
Suffolk County and Shoreham
Opponents Coalition Contention 12 and
Suffolk County Contentions 13, 14,
and 15"

10,080
[Not Bound In]
[LILCO Ex. 21]

5/4/82-4/8/83

APPENDIX E:

EXHIBITS BY PARTY AND NUMBER

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
Board Ex. 1	Long Island Lighting Company, Shoreham Nuclear Power Station Unit 1, "Final Safety Analysis Report," Figure 4.2.2-1: "Reactor Vessel Internals (Schematic)," Undated	2975	2975 (Bound In)
Board Ex. 1A	Long Island Lighting Company, Shoreham Nuclear Power Station Unit 1, "Final Safety Analysis Report," Figure 4.2.2-1: "Reactor Vessel Internals (Schematic)," marked by LILCO, Undated	3322	3322 (Bound In)
Board Ex. 2	U.S. Nuclear Regulatory Commission, Office of Inspection and Enforcement, Report No. 50-322/82-20 for inspection on October 12-15, 1982, cover letter dated November 16, 1982	17,107	
Board Ex. 3	U.S. Nuclear Regulatory Commission, "Environmental Qualification of Electric Equipment Important to Safety for Nuclear Power Plants: Final Rule," 48 Fed. Reg. 2729, January 21, 1983	19,553 (Bound In)	
LILCO Ex. 1	Deposition of Robert M. Kascsak, March 31, 1982, pp. 161-163	1312 (Bound In at 1313)	

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
LILCO Ex. 2	Memorandum from Thomas F. Dorian, Regulations Divi- sion, Office of Executive Legal Director, NRC, to Steven D. Richardson, OSD, NRC, March 15, 1980	1356	
LILCO Ex. 3	U.S. Atomic Energy Commission, "Quality Group Classifications and Standards for Water-, Steam-, and Radioactive-Waste- Containing Components of Nuclear Power Plants," Regulatory Guide 1.26, Revision 1, September 1974	1487-A	1487-A (Bound In)
LILCO Ex. 4	Long Island Lighting Company, "Loss of Off-Site Power Emer- gency Procedure," SP 29.015.01, Revi- sion 1, July 21, 1981	1588	1588 (Bound In)
LILCO Ex. 5	Long Island Lighting Company, "Transient With Failure to Scram Emergency Procedure," SP 29.024.01, Revi- sion E, Undated	1696	1697 (Bound In)
LILCO Ex. 6	Long Island Lighting Company, "Emergency Shutdown Emergency Procedure," SP 29.010.01, Revision 2, November 17, 1980	1698	1699 (Bound In)
LILCO Ex. 7	R. C. Cryter and C. W. Ricker, "Character- istics and Perfor-	3033	3039 (Withdrawn)

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	mance Experience of Loose Parts Monitor- ing Systems in U. S. Commercial Power Re- actors," U. S. Nuclear Regulatory Commission, NUREG-0524, pgs. 21-22, March 1979		
LILCO Ex. 7A	R. C. Cryter and C. W. Ricker, "Characteris- tics and Performance Experience of Loose Parts Monitoring Systems in U. S. Commercial Power Reactors," U. S. Nuclear Regulatory Commission, NUREG-0524 March 1979	3214	
LILCO Ex. 8	R. C. Cryter and F. Shahrokhi, "A Summary of Studies on Methods for Detecting, Locating and Characterizing Metallic Loose Parts in Nuclear Reactor Cooling Systems," Oak Ridge National Laboratory for the U. S. Nuclear Regula- tory Commission, NUREG/CR-2344 (cover page, table of contents, and pgs. ix-xii), October 30, 1981	3042	
LILCO Ex. 8A	R. C. Cryter and F. Shahrokhi, "A Summary of Studies on Methods for Detecting, Locating and Characterizing Metallic Loose Parts	3199	

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	in Nuclear Reactor Cooling Systems," Oak Ridge National Laboratory for the U. S. Nuclear Regula- tory Commission, NUREG/CR-2344, October 30, 1981		
LILCO Ex. 9	Long Island Lighting Company, Shoreham Nuclear Power Station Unit 1, "Final Safety Analysis Report," Figure 5.5.1-1: "Reactor Recirculation System Elevation and Isometric," Undated	3054	
LILCO Ex. 10	Long Island Lighting Company, Shoreham Nuclear Power Station Unit 1, "Final Safety Analysis Report," Sec- tion 3.7.1A: "Seismic Input," including Figure 3.7.1A-1: "Re- sponse Spectra Design Basis Earthquake," Figure 3.7.1A-2: "Re- sponse Spectra Operating Basis Earthquake," and Figure 3.7.1A-5: "Re- sponse Spectra for Various Earthquake Rec- ords," Revision 1, March 1976	4120	4121 (Bound In)
LILCO Ex. 11	Long Island Lighting Company, Shoreham Nuclear Power Station Unit 1, "Final Safety Analysis Report," Volumes 1 to 16, through Revision 26, April 1982	4560	4560

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
LILCO Ex. 12	Long Island Lighting Company, Shoreham Nuclear Power Station Unit 1, "Environmental Report-Operating License Stage," Volumes 1 to 6, through Revision 4, September 1979	4560	4560
LILCO Ex. 13	Memorandum from Harold R. Denton, Director of Nuclear Reactor Regulation, to Carlyle Michelson, Director, Office for Analysis and Evaluation of Operational Data, NRC, " <u>AEOD Preliminary Report: Safety Concern Associated with Reactor Vessel Level Instrumentation in Boiling Water Reactors</u> ," October 30, 1981	5496	5496 (Bound In)
LILCO Ex. 14	Science Applications, Inc., <u>Probabilistic Risk Assessment - Shoreham Nuclear Power Station - Long Island Lighting Company</u> , Preliminary Draft, pg. 3-149, March 1982	5988	5989 (Bound In)
LILCO Ex. 15	General Electric Company "General Electric Large Steam Turbine Generator Quality Assurance Program," GEZ-4982A, Undated	7477	
LILCO Ex. 16	Long Island Lighting Company, "SNPS - Project Procedure	7533 (Bound In)	

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	No. 4, Shoreham Nuclear Power Station - Unit 1, Long Island Lighting Company," C-11600.02-7A, pg. 1 and 4, August 20, 1973		
LILCO Ex. 17	Memorandum from Eric E. Jakel, Attorney, OELD, NRC, to M. Kehnamuyi, AD/GES, DES, OSD, NRC, "Extent of Applicability of Appendix B to 10 CFR Part 50 to Structures, Systems, and Components of Nuclear Power Plants," July 25, 1978	7773 (Rejected at 7780) (Bound In at 7781)	
LILCO Ex. 18	Southwest Research Institute, <u>An Analysis of the Reliability of Light Water Reactor Power-Actuated Pressure-Relieving Valves and Safety (Relief) Valves And Their Component Parts Using The Nuclear Plant Reliability Data System (NPRDS)</u> , Final Report, Prepared for Sandia National Laboratories, cover page, pgs. 20, 24, and A-9/A-10, November 16, 1981	9298 (Bound In at 9299)	
LILCO Ex. 19	Long Island Lighting Company, "LILCO's Response to ASLB Information Requests," June 25, 1982, including "Item 1 -- Primary Containment and Suppression Pool Sizes" with attached	9728	

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	letter from J. L. Smith, Manager, Special Projects, Shoreham Nuclear Power Station, LILCO, to Harold R. Denton, Director, Office of Nuclear Reactor Regulation, NRC, "Shoreham Nuclear Power-Unit 1, Docket No. 50-322," SNRC-645, December 16, 1981		
LILCO Ex. 20	Long Island Lighting Company, "LILCO's Preliminary Response to Humphrey Concerns," and "Preliminary Resolution of Mark II Applicable Humphrey Concerns for Shoreham," Drafts, August 25, 1982	9728	
LILCO Ex. 21	Testimony of John F. Alexander, T. Tracy Arrington, Frederick B. Baldwin, Robert G. Burns, William F. Eifert, T. Frank Gerecke, Joseph M. Kelly, Donald G. Long, Arthur R. Muller, William J. Museler, and Edward J. Youngling for the Long Island Lighting Company Regarding Suffolk County and Shoreham Opponents Coalition Contention 12 and Suffolk County Contentions 13, 14, and 15; with Attachments	10,080	10,080
LILCO Ex. 21A	Errata to LILCO Ex. 21	10,080	10,080

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
LILCO Ex. 22	Long Island Lighting Company, Table entitled "E&DCR Verification Program Statistics," Undated	12,033	12,033 (Bound In)
LILCO Ex. 23	Long Island Lighting Company, "Transcript Corrections on Calculations," 1 page, Undated	13,317	13,317 (Bound In)
LILCO Ex. 24	Long Island Lighting Company, "Calculations," 4 pages, Undated	13,319 (Bound In at 13,320)	
LILCO Ex. 25	Long Island Lighting Company, "Drawings," 1 page, Undated	13,442 (Bound In)	
LILCO Ex. 26	Long Island Lighting Company, "Transcript Corrections Document Control," 1 page, Undated	13,465	13,465 (Bound In)
LILCO Ex. 27	Long Island Lighting Company, "Document Control," 5 pages, Undated	13,467 (Bound In at 13,474)	
LILCO Ex. 28	Long Island Lighting Company, "E&DCRs," 3 pages, Undated	13,550 (Bound In at 13,551)	
LILCO Ex. 29	Long Island Lighting Company, "Shoreham Plant Configuration Review," 1 page, Undated	13,689 (Bound In at 13,694)	
LILCO Ex. 30	Long Island Lighting Company, 4 graphs entitled "E-51 RCIC System," "E-41 HPCI System," "E-51 RCIC	13,707 (Bound In)	

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	System," and "SPCR Finding C41 (01-2)"		
LILCO Ex. 31	Long Island Lighting Company, a document listing audit obser- vations related to storage with the headings "Group I - Storage History Cards," "Group II - Protection Against Weather," "Group III - Covers and Caps for Material and Equipment," and "Group IV - Environmental Pro- tection," 9 pages, Undated	13,734 (Bound In)	
LILCO Ex. 32	Long Island Lighting Company, "Miscella- neous Transcript Corrections," 1 page, Undated	13,791	13,791 (Bound In)
LILCO Ex. 33	Letter from Thomas T. Martin, Director, Division of Engi- neering and Tech- nical Programs, NRC, to M. S. Pollack, LILCO, on the Staff response to the CAT Report, November 4, 1982	13,798	
LILCO Ex. 34	Long Island Lighting Company, a booklet including Nuclear Operations Corporate Policy, No. 22, de- scribing the Indepen- dent Safety Engineering Group (ISEG); Charter	14,318	14,318

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	of ISEG for LILCO; Administrative Pro- cedures for ISEG, NOSD Series 19.1 through 19.5; and resumes of ISEG Group Leader and Engineers, Undated		
LILCO Ex. 35	Long Island Lighting Company, Response to ASLB Information Request, including Items 3 and 4, resumes of Kubinak and McCaffrey, November 10, 1982	14,320	14,320
LILCO Ex. 36	Long Island Lighting Company, Chart entitled "Nuclear Operations Support," dated 10/82; Chart showing reporting of Off-Site Nuclear Review Board, Undated; and Chart showing reporting of Review Operations Committee, entitled Figure 13.1.2-1, "Station Organiza- tion," FSAR, Revi- sion 27, August 1982	14,323	14,323 (Bound In)
LILCO Ex. 37	Long Island Lighting Company, "Resumes of Outside Consultant Members of the Nu- clear Review Board," including "Resume of David C. Rorer," "Resume of Richard Bowers," "Resume of Robert C. Christenson," "Resume of Dr. Raymond M. Crawford," and "Re-	14,440	14,443

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	sume of Francis E. Duval," Undated		
LILCO Ex. 38	U.S. Atomic Energy Commission, "Guid- ance on Quality Assurance Require- ments During the Operations Phase of Nuclear Power Plants," WASH-1284, Figure 2 following Page D-4, October 26, 1973	14,680 (Bound In at 14,681)	
LILCO Ex. 39	Long Island Lighting Company, "Transcript Corrections for OQA Testimony," 1 page, Undated	14,835	14,836 (Bound In)
LILCO Ex. 40	Long Island Lighting Company, "Station Operational Quality Assurance (OQA) Stop Work Authority," QAPS 01.2, Rev. 2, April 16, 1981	14,882	14,882 (Bound In)
LILCO Ex. 41	Long Island Lighting Company, "Fluke 8000A Calibration," SP 46.050.12, Rev. 9, Nov. 25, 1981	14,945 (Bound In at 14,958)	
LILCO Ex. 42	Long Island Lighting Company, "Transma- tion Model 1040 Digital Calibrator Calibration," SP 46.050.06, Rev. 4, May 19, 1981	14,945 (Bound In at 14,958)	
LILCO Ex. 43	U.S. Nuclear Regu- latory Commission, "Instrument Set- points," Regulatory	15,428	

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	Guide 1.105, Rev. 1, November 1976		
LILCO Ex. 44	U.S. Nuclear Regu- latory Commission, "Periodic Testing of Power and Pro- tection Systems," Regulatory Guide 1.118, Rev. 2, June 1978	15,430	
LILCO Ex. 45	Testimony of Johnny J. Kreps and Jack A. Notaro for the Long Island Lighting Company on Water Hammer Procedures and Training, July 9, 1982	15,505	15,506
LILCO Ex. 46	Supplemental Testi- mony of Jeffrey L. Smith, John J. Boseman and Richard Gutmann Concerning Maintenance of Safety/Relief Valves at Shoreham Nuclear Station, August 19, 1982	15,505	15,506
LILCO Ex. 47	Supplemental Testi- mony of John J. Boseman on Behalf of Long Island Light- ing Company Concern- ing Polymerization of SRV Lubricants, August 19, 1982	15,505	15,506
LILCO Ex. 48	Further Supplemental Testimony of John J. Boseman on Behalf of Long Island Light- ing Company Concern- ing Polymerization	15,505	15,506

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	of SRV Lubricants, August 31, 1982		
LILCO Ex. 49	Long Island Lighting Company, Shoreham Nuclear Power Station, Final Safety Analysis Report, Table 223.12-3, "Cable Tray Sepa- ration in Nonhaz- ardous Areas," 1 page, April 1979	15,709 (Bound In at 15,710)	
LILCO Ex. 50	U.S. General Account- ing Office, <u>The</u> <u>Nuclear Regulatory</u> <u>Commission Needs to</u> <u>Aggressively Monitor</u> <u>and Independently</u> <u>Evaluate Nuclear</u> <u>Power Plant Construc-</u> <u>tion</u> , EMD-78-80, pages 12,13, and 31, September 7, 1978	15,815	
LILCO Ex. 51	U.S. House of Repre- sentatives, Committee on Interior and Insular Affairs, Subcommittee on Energy and the Environment, Oversight Hearing held November 19, 1981 on <u>Quality Assurance in</u> <u>Nuclear Powerplant</u> <u>Construction</u> , Serial No. 97-26, pgs. 121-122, 1982	15,906 (Bound In)	
LILCO Ex. 52	U.S. Nuclear Regu- latory Commission, Office of Inspection and Enforcement, Report No. 50-322/ 79-04 for inspection	17,182	17,500

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	on March 27-30, April 2-4, 1979, cover letter dated July 12, 1979; pages 1 and 2 of the cover letter and 1-2, 9-11 of the report		
LILCO Ex. 53	Long Island Lighting Company, "Question" and "Subject," a list of question numbers and subjects from the FSAR, 1 page, Undated	17,294 (Bound in at 17,297)	
LILCO Ex. 54	Memorandum from W. J. Museler and E. J. Youngling, LILCO, to All Department Heads, Superintendents, Supervisors and Contractors, "Housekeeping and Cleanliness Zone Requirements, Shoreham Nuclear Power Station-Unit 1, W010-48923," March 8, 1982	17,301 (Bound in at 17,303)	
LILCO Ex. 55	Testimony of Joseph P. Novarro Regarding Torrey Pines Technology's Independent Verification of Shoreham Nuclear Power Station, December 7, 1982	17,587	17,588 (Bound In)
LILCO Ex. 56	Testimony of Lewis D. Johnson Regarding Torrey Pines Technology's Independent Verification of Shoreham Nuclear Power Station, December 7, 1982	17,589	17,590

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
LILCO Ex. 57	Deposition of Louis D. Johnson, 236 pgs., January 3, 1983	17,613	17,616
LILCO Ex. 57A	Memorandum from Lewis F. Powell, III, to Alan R. Dynner, Esq. and Michael S. Miller, Esq., "Additional Cor- rections to Deposi- tion of Louis D. Johnson," January 7, 1983	17,614 (Bound In at 17,616)	
LILCO Ex. 57B	Memorandum from Lewis F. Powell, III to Alan R. Dynner, Esq. and Michael S. Miller, Esq., "LILCO's Initial Designation of Portions of the Deposition of Louis D. Johnson," January 6, 1983	17,614 (Bound In at 17,616)	
LILCO Ex. 58	Deposition of Joseph F. Novarro, 187 pgs., December 30, 1982	17,617	17,621
LILCO Ex. 58A	Memorandum from Anthony F. Earley, Jr. to Alan R. Dynner, Esq. and Michael S. Miller, Esq., "Novarro Deposition," January 5, 1983	17,617	17,621 (Bound In)
LILCO Ex. 58B	Memorandum from Anthony F. Earley, Jr. to Alan R. Dynner, Esq., and Michael S. Miller, Esq., "LILCO's Initial Designation of Portions of the Deposi- tion of Joseph P.	17,618	17,621 (Bound In)

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	Novarro," January 4, 1983		
LILCO Ex. 59	Torrey Pines Techno- logy, "Final Report, Independent Verifi- cation, Shoreham Nuclear Power Station," Volume 2, Program Results; Volume 3, Potential Finding Reports, Book 1; and Volume 3, Potential Planning Report, Book 2, GA-C16873, September 30, 1982	17,660	17,662
LILCO Ex. 60A	Agreement Regarding Results of Study Performed Pursuant to Resolution of SC Contention 28(a)(i) and SOC Contention 7.A(1)--ECCS Cutoff	18,134 (Bound In at 18,133)	
LILCO Ex. 60B	General Electric Company, Report of study performed pursuant to resolu- tion of SC 28(a)(i) and SOC Contention 7.A(1)--ECCS Cutoff, 50 pgs., Undated	18,134	
LILCO Ex. 61	Letter from Gregory J. Blass, Legislator, County of Suffolk, to MHB Associates, September 21, 1982	19,180 (Bound In at 19,181)	19,190 (Rejected)
LILCO Ex. 62	Letter from James L. Larocca, New York State Energy Office, to Paul Harenberg, New York State Assembly, July 9, 1982	19,184 (Bound In at 19,185)	19,190 (Rejected)

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
LILCO Ex. 63	Long Island Lighting Company, "Environmental Qualification Report for Class 1E Equipment, Shoreham Nuclear Power Station Unit 1," 2 volumes, Revision 4, October 1982	19,300	
LILCO Ex. 64A	Long Island Lighting Company, "Responses to the Board's Request for Information Concerning Certain I&E Reports," December 21, 1982	20,021	
LILCO Ex. 64B	Letter from William J. Museler, LILCO, to Anthony J. Earley, Jr. and Timothy S. Ellis Hunton & Williams, enclosing four numbered item responses to ASLB information request on Shoreham Nuclear Power Station, December 18, 1982	20,021	20,022 (Item 4 only admitted into evidence)
LILCO Ex. 65	Illustration on cover hold-downs, labeled "Factory Supplied," "Approved E&DCR," "Field Modification-1," "Field Modification-2"	20,071 (Bound In at 20,072)	
LILCO Ex. 66	Memorandum from Richard W. Starostecki, Director, Division of Project and Resident	20,584 (Bound In at 20,586)	

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	Programs, Region I, NRC, to Walter P. Haass, Chief, Quality Assurance Branch, Division of Engineering, NRC "Comments on EG&G Report (EGG-EA- 6109 - November, 1982-Draft)", January 6, 1983		
LILCO Ex. 67	Letter from L. C. Dail, Vice Presi- dent, Design En- gineering, Duke Power Company, to Walter P. Haass, Deputy Chief, Qual- ity Assurance Branch, Division of Engineering, Office of Nuclear Reactor Regulation, NRC, "Comments on EG&G-EA-6109- 'Identification and Ranking of Nuclear Plant Structures, Systems and Com- ponents and Graded Quality Assurance Guidelines,' Draft, November 1982," February 23, 1983	20,589 (Bound In at 20, 595)	
LILCO Ex. 68	U. S. Nuclear Regulatory Com- mission, <u>Remarks</u> <u>Presented (Ques-</u> <u>tions/Answers Dis-</u> <u>cussed) at Public</u> <u>Regional Meetings</u> <u>To Discuss Regula-</u> <u>tions (10 CFR Part</u> <u>21) For Reporting</u> <u>of Defects and Noncom-</u>	20,628 (Bound In at 20,641)	

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	<u>pliance, NUREG-0302, Rev. 1, cover page and pages 21.3(a)-1 and 21.3(a)-2, July 12-26, 1977</u>		
LILCO Ex. 69	Letter from M. S. Pollock, Vice President-Nuclear, LILCO, to Darrell G. Eisenhut, Director, Division of Licensing, NRC, SNRC-844, March 2, 1983	20,653	20,654 (Bound In)
LILCO Ex. 70	Letter from M. S. Pollock, Vice President-Nuclear, LILCO, to Darrell G. Eisenhut, Director, Division of Licensing, NRC, SNRC-854, with attachments, March 8, 1983	20,653	20,654 (Bound In)
LILCO Ex. 71	U.S. Nuclear Regulatory Commission, Office of Nuclear Reactor Regulation, <u>Identification of Unresolved Safety Issues Relating to Nuclear Power Plants</u> , NUREG-0510, cover page and pages A-12, A-13, B-4, and B-5, January 1979	20,934	20,953 (Bound In)
LILCO Ex. 72	"Portions of I&E Report 50-322/83-02 Admitted Into Evidence," 2 pages, Undated	20,998 (Bound In)	
LILCO Ex. 73	"Resolution of Subsection (d) of SC Contention	21,000	21,000 (Bound In)

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	13 -- Quality Assurance/Quality Control -- Operations, " March 31, 1983		
LILCO Ex. 74	"List of LILCO/S&W Audits Reviewed by NRC Staff Witnesses in Preparation for Oral Testimony," 1 page, Undated	21,033	21,033 (Bound In at 21,034)
LILCO Ex. 75	Memorandum from M. S. Pollock, Vice President-Nuclear, LILCO, to All Officers, Department and Division Managers and Supervisors, "Organization Change-Office of Vice President-Nuclear," March 28, 1983	21,043	21,043 (Bound In)
LILCO Ex. 76	Letter from Walter H. D'Ardenne, Chairman, Ad Hoc Committee on Important to Safety, ANS, to George L. Wessman, with attachments, March 30, 1983	21,165 (Bound In at 21,169)	21,165-69 (Rejected)
SC Ex. 1	Memorandum from Carlyle Michelson, Director, Office for Analysis and Evaluation of Operational Data, NRC, to Harold R. Denton, Director, Office of Nuclear Reactor Regulation, NRC,	1790	5373 (Bound In)

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	"Safety Concern Associated with Reactor Vessel Level Instrumenta- tion in Boiling Water Reactors," January 20, 1982		
SC Ex. 2	Quadrex Corporation, "Evaluation of Water Hammer Events in Light Water Reactor Plants, March 1982," Draft Revision 0, March 10, 1982 (Chapter 5 deleted.)	2149	2149
SC Ex. 3	EG&G - Idaho, Inc., "Compilation of Data Concerning Known and Suspected Water Hammer Events in Nuclear Power Plants, April 1982" (Preliminary Draft -- Interim Report) (Appendices B & C, and "PWR Non-Steam Generator Events" deleted.)	2150	2150
SC Ex. 4	Memorandum from Robert L. Tedesco, Assistant Director for Licensing, Division of Licensing, NRC, to The Atomic Safety and Licensing Board for the Shoreham Nuclear Power Station, "Board Notification - Japanese Core Spray Distribution Tests on a Simulator BWR/5 Con- figuration (BN-81-49)," December 11, 1981	2621	2623 (Bound In)
SC Ex. 5	Letter from Richard W. Starostecki, Di-	2726	2733 (Bound In)

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	rector, Division of Resident and Project Inspection, NRC, to M. S. Pollock, Long Island Lighting Company, "Inspection 50-322/82-02," February 2, 1982		
SC Ex. 6	U. S. Nuclear Regu- latory Commission, Office of Nuclear Regulatory Research, "Loose-Part Detection Program for the Primary System of Light-Water-Cooled Reactors," Regulatory Guide 1.133, Revision 1, May 1981	2738	2878 (Bound In)
SC Ex. 7	ENDEVCO, "Isobase High Temperature Accelerometer," General Description and Specifications for Models 2273AM1 and 2273AM20, Page 1 of 4, June 1975	2908	2977 (Bound In)
SC Ex. 8	Technology for Energy Corporation, "TEC 500 Remote Charge Conver- ter Specifications," Undated	2914	2977 (Bound In)
SC Ex. 9	Long Island Lighting Company, Shoreham Nuclear Power Station Unit 1, "Final Safety Analysis Report," Revision 19, Section 4.4.6, pg. 4.4-25, September 1980	2979	2979

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
SC Ex. 10	Letter from Boyce H. Grier to Long Island Lighting Company, enclosing I & E Bulletin No. 80-7, "BWR Jet Pump Assembly Failure," April 4, 1980	3107	
SC Ex. 11	Long Island Lighting Company, Shoreham Nuclear Power Station Unit 1, "Final Safety Analysis Report," Figure 5.5.1-5, Undated	3118	
SC Ex. 12	U.S. Nuclear Regulatory Commission, I & E Information Notice 81-28, "Failure of Rockwell - Edward Main Steam Isolation Valves (MSIV)," September 3, 1981	3794	
SC Ex. 13	Long Island Lighting Company, "Memorandum to File A21.650: NRC IE Information Notice 81-28, Failure of Rockwell - Edward Main Steam Isolation Valves (MSIV) Shoreham Nuclear Power Station - Unit 1, W.O. 44430/48923," March 31, 1982	3858	3863 (Bound In)
SC Ex. 14	U.S. Nuclear Regulatory Commission, "Licensee Event Report Compilation for the Month of February 1982," NUREG/CR-2000, (Excerpts)	3873	
SC Ex. 15	U.S. Atomic Energy Commission, "Design Re-	4030	4123 (Bound In)

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	<p>sponse Spectra for Seismic Design of Nuclear Power Plants," Regulatory Guide 1.60, Revision 1, December 1973</p>		
SC Ex. 16	<p>Long Island Lighting Company, Shoreham Nuclear Power Station Unit 1, "Final Safety Analysis Report," Table 3.7.2A-1: "Natural Frequencies of Vibration (Cycles/ Sec)," Undated</p>	4145	4147 (Bound In)
SC Ex. 17	<p>Institute of Nuclear Power Operations, Nuclear Safety Analy- sis Center, "Screening and Evaluation of 1979 Licensee Event Re- ports," pgs. 4-6 through 4-10, Undated</p>	4648	
SC Ex. 18	<p>Long Island Lighting Company, Shoreham Nuclear Power Station Unit 1, "Final Safety Analysis Report," Figure 7.1.1-1: "Plant Instrumentation and Control Systems-- Classification," Revision 22, July 1981</p>	4863	
SC Ex. 19	<p>Lawrence Livermore Laboratory, "State-of- the-Art Review and Methods Evaluation Performed," NUREG/CR- 1859, pgs. xvi-xix and 53, January 1981</p>	5025	
SC Ex. 20	<p>Institute of Nuclear Power Operations, Nu- clear Safety Analysis</p>	5262	5318 (Bound In)

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	Center, "Analysis of Incomplete Control Rod Insertion at Browns Ferry 3," INPO/3, NSAC/20, cover page through pg. 5, December 1980		
SC Ex. 21	Institute of Nuclear Power Operations, Nuclear Safety Analysis Center, "High Pressure Core Cooling System Malfunctions at Hatch," April 1981	5605	
SC Ex. 22	Science Applications, Inc., <u>Probabilistic Risk Assessment - Shoreham Nuclear Power Station - Long Island Lighting Company, Preliminary Draft, pgs. 2-32 through 2-36, March 1982</u>	5666	5903 (Bound In)
SC Ex. 23	Science Applications, Inc., <u>Probabilistic Risk Assessment - Shoreham Nuclear Power Station - Long Island Lighting Company, Preliminary Draft, pgs. 3-172 and 4-3, March 1982</u>	5688	5903 (Bound In)
SC Ex. 24	Science Applications, Inc., <u>Probabilistic Risk Assessment - Shoreham Nuclear Power Station - Long Island Lighting Company, Preliminary Draft, pg. 3-150, Figure 3.6.6: "Comparison of the Contributing Accident Sequences to the Cal-</u>	5741	5903 (Bound In)

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	culated Frequency of Core Melt from WASH- 1400 and the Shore- ham Analysis," March 1982		
SC Ex. 25	Probabilistic Risk Assessment for Limerick Nuclear Power Station, pg. 3-96, Figure 3.5.2: "Summary of the Acci- dent Sequence Fre- quencies Leading to Degraded Core Condi- tions Summed Over All Accident Sequences Within a Class," March 1981	5773	5903 (Bound In)
SC Ex. 26	Probabilistic Risk Assessment for Limerick Nuclear Power Station, pg. 3-100, Figure 3.5.4: "Com- parison of the Con- tributing Accident Sequence to the Cal- culated Frequency of Core Melt from WASH- 1400 and the Limerick Analysis," March 1981	5792	5903 (Bound In)
SC Ex. 27	Science Applications, Inc., <u>Probabilistic Risk Assessment - Shoreham Nuclear Power Station - Long Island Lighting Com- pany, Preliminary Draft, pg. 3-9, Table 3.3.1: "Generic Accident Sequence Classes,"</u> March 1982	6057	6057 (Bound In)

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
SC Ex. 28	L. G. Frederick, General Electric Co., "Comparison of PRA Results -- Shoreham & Limerick," 4/29/82	6265	6326 (Bound In) (Rejected)
SC Ex. 29	U.S. Nuclear Regu- latory Commission, Reliability and Risk Assessment Branch, Division of Safety Tech- nology, Office of Nuclear Reactor Regu- lation, "Initial Guidance for the Per- formance of Systems Interaction Analyses at Selected LWRS (Guidance for Interim Use and Comment)," Draft, cover and pg. 5-2, January 7, 1982	6710 (Bound In at 6742)	
SC Ex. 30	"Fifth Iteration of the TMI Action Plan Tracking System," two pages of this computer printout on II.F.5 and II.G.1 of NUREG-0737, April 1, 1982	6719 (Bound In at 6742)	
SC Ex. 31	J. W. Minarick and C. A. Kukiela, "Precursors to Po- tential Severe Core Damage Acci- dents: 1969-1979 -- A Status Report," Oak Ridge National Laboratory for the U.S. Nuclear Regu- latory Commission, NUREG/CR-2497, Vol.	6727 (Bound In at 6742)	

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	1, pgs. v-ix, xi-xiv, 1982		
SC Ex. 32	Memorandum from Walter P. Haass, Chief, Quality Assurance Branch, Division of Pro- ject Management, NRC, to W. M. Morri- son, Assistant Di- rector for General Engineering Stan- dards, Division of Engineering Stan- dards, SD, NRC, "QAB Comments on Proposed Regula- tory Guide 1.XXX (RS-704-4)," July 24, 1979	6989 (Bound In at 7009)	
SC Ex. 33	Oak Ridge National Laboratory for the NRC, "Licensee Event Report (LER) Compilation for the Month of April 1982," NUREG/CR-2000, ORNL/NSIC-200, Vol. 1, No. 4, pg. 12, Undated	8110 (Bound In at 8311)	
SC Ex. 34	Letter from A. Schwen- cer, Chief, Licensing Branch No. 2, Division of Licensing, NRC, to M. S. Pollock, Vice President - Nuclear, Long Island Lighting Company, "Request for Addi- tional Information - Shoreham Nuclear Power Station," July 8, 1982	8264 (Bound In at 8312)	
SC Ex. 35	General Electric Com- pany Nuclear Fuel and Services Division,	8463 (Bound In at 8480)	

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	Information Letter: "Recommendations Applicable to the Target Rock Main Steam Safety/Relief Valve, Model #7567F (2-Stage SRV Design)," SIL No. 196, Supplement 11, Category 2, April 1982		
SC Ex. 36	Long Island Lighting Company, "Shoreham Transient With Fail- ure to Scram Emer- gency Procedure," SP 29.024.01, Enclo- sure 4, pgs. 21-23, Undated	9012 (Bound In at 9042) (Rejected at 9248)	
SC Ex. 37A	Memorandum from Joel J. Kramer, Deputy Director, Division of Human Factors Safety, NRC, to Robert L. Tedesco, Assistant Director for Licensing, Division of Licensing, NRC, "Safety Evaluation Report Input: Shoreham Nuclear Power Station - Unit 1 (SNPS-1), Emergency Operating Procedures and Anticipated Transients Without Scram," February 11, 1982	9015	9251 (Bound In at 9249)
SC Ex. 37B	Division of Human Fac- tors Safety, NRC, "Safety Evaluation Re- port Input, Shoreham Nuclear Power Station, Unit 1, Operating and Maintenance Procedures and Anticipated Trans- ients Without Scram," Draft, Attachment to	9015	9252 (Rejected) (Bound in at 9249)

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	SC Ex. 37A, February 11, 1982		
SC Ex. 38	U. S. Nuclear Regula- tory Commission, Office of Inspection and Enforcement, "Failure of 76 of 185 Control Rods to Fully Insert During a Scram at a BWR," I&E Bulle- tin 80-17, Enclosure 1, July 3, 1980	9054 (Bound In at 9252)	
SC Ex. 39	Four handwritten charts all indi- cating "Time After Start of ATWS (Min.)," and having as other variables "Reactor Power (% Rated)," " "Reactor Pressure (psig)," "Water Level (Inches Above TAF)," and "Supp. Pool Temp.," Undated	9171	9173 (Bound In)
SC Ex. 40	Long Island Lighting Company, "Emergency Shutdown Emergency Procedure," SP 29.010.01, Revision 3, Pg. 1, May 14, 1982	9189 (Bound In at 9253)	
SC Ex. 41	Long Island Lighting Company, "Residual Heat Removal (RHR) System," SP 23.121.01, Revision 1, pgs. 1, 8 and 9, October 23, 1980	9229 (Bound In at 9254)	
SC Ex. 42	Memorandum from Robert L. Tedesco, for the Atomic Safety and Licensing Boards, for Shoreham	9815 (Bound In at 9998)	

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	Nuclear Power Station, Unit 1, Enrico Fermi Atomic Power Plant, Unit 2, William H. Zimmer Nuclear Power Station, Unit 1, "Board Notification - Air Pressure Loads on the Drywell - Wetwell Vacuum Breakers During Pool Swell Following a Postulated LOCA (Board Notification 82-55)," June 10, 1982		
SC Ex. 43	Long Island Lighting Company, Shoreham Nuclear Power Station, Unit 1, Design Assess- ment Report, "Appendix A -- Lead Plant Accep- tance Criteria (NUREG- 0487, Appendix D) Pos- itions," pgs. A-1 through A-14, Revision 5, December 1981	9832 (Bound In at 9998)	
SC Ex. 44	Letter from Robert L. Tedesco, Assistant Director for Licens- ing, NRC, to M.S. Pollock, Vice Presi- dent - Nuclear, LILCO, "Concerns Regarding the Adequacy of the Design Margins of the Mark I and II Containment Systems," enclosing document entitled "Humphrey Containment Concerns," July 8, 1982	9848 (Bound In at 9998)	
SC Ex. 45	Letter from J. L. Smith, Manager, Special Projects, Shoreham Nuclear Power Station, LILCO,	9884	10,000 (Bound In)

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	to Harold R. Denton, Office of Nuclear Re- actor Regulation, NRC, "NUREG-0808 Load Eval- uation Justification of Selected Piping Sub- systems, Shoreham Nu- clear Power Station - Unit 1, Docket No. 50-322," SNRC-714, with attachments, July 9, 1982		
SC Ex. 46	Long Island Lighting Company, Shoreham Nuclear Power Station Unit 1, Design Assess- ment Report, pgs. L-11 and L-12, Revision 5, December 1981	9965	10,000 (Bound In)
SC Ex. 47	Long Island Lighting Company, Shoreham Nuclear Power Station Unit 1, Design Assess- ment Report, pgs. L-4 and L-5, Figures L-25, L-27, L-29, L-32, L-33, and L-34, Revision 5, December 1981	9969	10,000 (Bound In at 9978)
SC Ex. 48	Stone & Webster, Shoreham Project Audit No. 0 (an Engineering Assurance Audit), December 31, 1969	10,283	
SC Ex. 49	Stone & Webster, Shoreham Audit No. 00, July 1, 1970	10,283	
SC Ex. 50	Stone & Webster, Shoreham Project Audit 1, September	10,283	

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	1970		
SC Ex. 51	Stone & Webster, Engineering Assurance Audits 2 through 40, March 1971 - June 4, 1982	10,285	
SC Ex. 52	Letter from R.S. Costa, Project QA Manager, Stone & Webster, to T. F. Gerecke, QA Manager, LILCO, "Quality Assurance Program Report - Shoreham Nuclear Power Station," October 2, 1979	10,705 (Bound In at 10,726)	
SC Ex. 53	Memorandum from D.C. Shelton, Stone & Webster, to E. J. Brabazon and J. Carney (SEO), "Engineering Assurance Audit Report, Shoreham SEO Audit 11," May 5, 1981	10,711 (Bound In at 10,726)	
SC Ex. 54	Long Island Lighting Company, Three surveillance reports on mechanical equipment, electrical equipment, and instrumentation, Undated	10,838	
SC Ex. 55	Long Island Lighting Company, Field Audit (FA) Report 602, July 5, 1977	10,867 (Bound In at 10,982)	
SC Ex. 56	Stone & Webster, Field Quality Control (FQC) Audits	11,024	11,423

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	8 through 41, Undated. FQC 26, Finding L.3, 6/78; FQC 34, Finding N.1, 6/80; FQC 35, Attachment 2, Observation 2.4, 9/80; and FQC 38, p. 2, Item B at top and Attachment 1, Observation 1.2, 6/81 were received into evidence. [See also SC Ex. 65 and SC Ex. 67]		
SC Ex. 57	Long Island Lighting Company and Stone & Webster, Field Audit 654, November 16, 1977. Findings 4.6 and 4.7 were received into evidence.	11,056 (Bound In at 11,122)	11,423
SC Ex. 58	Long Island Lighting Company and Stone & Webster, Field Audit 718, March 13, 1978. Findings 3.1, 4.3, and 4.4 were received into evidence.	11,121 (Bound In at 11,138)	11,422
SC Ex. 59	Long Island Lighting Company, Field Audit 842, November 16, 1978. Finding 4.1 was received into evidence.	11,127 (Bound In at 11,138)	11,422
SC Ex. 60	Memorandum from R. L. Bernard, LILCO, to J. M. Kelly, LILCO, "Sample Inspection of Safety Related E&DCR's," September 8, 1977	11,271 (Bound In)	

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
SC Ex. 61	Kirkpatrick, Lockhart, Hill, Christopher & Phillips, "Courter E&DCR Deficiencies," 3 pages, Undated	11,362 (Bound In at 11,423)	
SC Ex. 62	Long Island Lighting Company, Field Audit 970, July 12, 1979. Finding 4.3 was received into evidence.	11,362 (Bound In at 11,481)	11,422
SC Ex. 63	Long Island Lighting Company, Quarterly Reports to Manage- ment, 12 reports covering, but not completely, the period May 4, 1978 through December 3, 1981. The following reports were received into evidence: 5/78, pg. 1, section 3; 8/31/78, pg. 1, last section; 11/3/78, pg. 1, section 3; 1/29/79, pg. 1, sec- tion 2; 4/16/79, pg. 1, section 3; and 8/20/79, pg. 1, last section. Also, May 30, 1980 Quarterly Report: pg. 1, first full paragraph; July 22, 1980: pg. 2, second paragraph; November 13, 1980: pg. 1, bottom paragraph; Feb- ruary 17, 1981: pg. 1, paragraph following "Fol- lowup on previously re- ported items;" August 31, 1981: pg. 2, paragraph starting "Failures to provide;" and December 31, 1981: pg. 1, last	11,363	11,422

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	paragraph.		
SC Ex. 64	Stone & Webster, E&DCR Implementation Verification Program, Revision No. 4, November 5, 1979.	11,446 (Bound In at 11,481)	
SC Ex. 65	Material related to storage and labeled Storage Groups 1 through 5 concerning, in sequence: storage card deficiencies, failure to protect against weather, covering and cap- ping, environmental protection, and lit- ter and debris. Those items received into evidence are listed below.	11,478	
	Field Audit (FA) 376, Finding 4.8; FA 601, Finding 4.4; FA 1016, Findings 4.1, 4.3; FA 1213, Findings 4.1, 4.2; FA 1425, Finding 4.1; FA 679, Find- ing 4.2; FA 934, Finding 4.1; and FA 980, Finding 4.1		11,556
	FA 699, Finding 4.1		11,585
	Field Quality Con- trol (FQC) Audit 13, Finding D.7; FA 238, Finding 4.3; FQC 15, Finding D.8; FA 443, Finding 4.4; FA 1086, Find-		11,586

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	ing 4.4		
	FQC 13, Finding D.4; and FQC 21, Finding D.11		11,596
	FA 1016, Finding 4.2		11,598
	FQC 13, Finding D.5; FA 226, Findings 4.4, 4.14; FQC 23, Finding D.7; and FQC 40, Observation 1.3, Subpart 4 with Attachment 1		11,616
	FA 371, Findings 4.2, 4.3, 4.4; FA 444, Findings 4.1, 4.2; FA 340, Find- ing 4.3; FQC 23, Finding D.5.2; FA 803, Finding 4.2; and FA 1183, Find- ings 4.1, 4.2, 4.3		11,635
	FA 371, Finding 4.1; FQC 23, Finding D.5.1; FA 648, Find- ing 4.3; FA 1275, Finding 4.2; FA 443, Finding 4.4; FQC 36, Finding 1.3; FA 425, Find- ing 4.1; and FQC 34, Finding N.2.A		11,654
	FA 376, Finding 4.4; FA 425, Finding 4.3; FA 470, Finding 4.2; FQC 23, Finding D.6; and FQC 24, Finding K.7		11,661

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	FA 238, Finding 4.9; and FA 44, Finding 4.4		11,668
	FQC 13, Finding D.8; FA 934, Finding 4.1; FA 1301, Find- ing 4.1; FA 1313, Find- ing 4.1; and FQC 28, Finding D.7		11,727
	FQC 15, Finding D.7; FA 470, Finding 4.9; FA 601, Findings 4.1, 4.2, 4.3; FQC 23, Finding D.5.3; FA 656, Finding 4.2; FA 721, Find- ings 4.1, 4.2; FA 803, Findings 4.3, 4.4; FA 934, Findings 4.2, 4.3; FA 980, Findings 4.2, 4.3; FA 1026, Findings 4.1, 4.2; FQC 33, pg. 2 of 3 and Find- ing D.4; FA 1086, Finding 4.2; FQC 34, Finding N.2; FA 1180, Findings 4.1, 4.3; and FA 1234, Find- ing 4.1		11,754
	FQC 17, Finding D.4; and FQC 21, Finding D.7		11,805
	FA 980, Finding 4.1		11,809
	FQC 34, Finding K.3		11,811
	FQC 35, Paragraph 3.2.1 and Attachment 2		11,815

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	FQC 20, Finding D.4; FA 425, Finding 4.4; FA 470, Finding 4.3; FQC 24, Finding D.5; FA 740, Findings 4.1 and 4.2; FA 1086, Finding 4.1; and FA 1313, Finding 4.2		11,824
	FQC 23, Finding D.8		11,827
	FA 340, Finding 4.1; FA 376, Finding 4.3; FQC 21, Finding D.15; FQ FA 648, Finding 4.3; FA 699, Finding 4.1; and FA 721, Finding 4.3		11,848
	FA 679, Finding 4.2; FA 226, Finding 4.1; and FA 803, Finding 4.1		11,857
	FA 1301, Finding 4.2		11,861
	FQC 21, Findings B.9, D.14, D.16, and D.17		11,867
	FA 226, Finding 4.3; FA 425, Finding 4.2; FA 444, Finding 4.1; FA 470, Findings 4.1 and 4.5; FQC 21, Finding D.13A; FQC 23, Finding K.5; FA 803, Finding 4.4; FA 1275, Finding 4.1; FA 1325, Findings 3.2 and 4.1; FQC		11,959

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	40, Finding 1.3.A.5; and FA 740, Finding 4.1		
	FQC 20, Finding D.5; FA 721, Finding 4.1; FA 1086, Find- ing 4.2; and FQC 34, Finding N.2.C		11,965
SC Ex. 66	Storage and handling field audits (listed in SC Ex. 65)	11,479	
SC Ex. 67	Document control summaries (handed out in 10/11/82 SC pleading), pages 2 through 39	11,977	
	The following items were received into evidence: Field Qual- ity Control (FQC) 23, Finding F.3; FQC 25, Finding K.1; FQC 26, Finding K.3; FQC 27, Finding K.2; FQC 28, Finding K.2; FQC 29, Finding K.2; FQC 30, Finding K.2; and FQC 31, Finding K.2		11,996
	EA 19, Finding 2.B.2; EA 22, A.O. 021(2); EA 23, A.O. 037; EA 27, A.O. 078; and FQC 14, Finding A.1		12,050
	FQC 14, Findings B.2, D.2, D.3; FQC 16, Findings B.2.A-B.2.E, D.4; FQC 18, Finding B.1; EA 18, pg. 2, #4; EA 24, A.O. 050, #1; EA 30, #0972A, and		12,051

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	#104, Parts 2 and 4; and EA 38, A.O. 141, Findings 1 and 2		
	EA 22, A.O. 020(4), A.O. 021(1); EA 26, A.O. 066, Parts 2 and 3, A.O. 067, Part 2; EA 30, A.O. 104, Part 1; EA 39, A.O. 152; and EA 40, A.O. 155 and 159		12,069
	EA 19, A.O. 2.B.3; EA 27, A.O. 074; FQC 9, Finding 06676(1); FQC 16, Finding D.2; and FQC 19, Finding K.1		12,086
	FQC 20, Finding L.4; and FQC 26, Finding L.4B		12,098
SC Ex. 68	Suffolk County, "Ad- ditional Audits Re- porting Document Con- trol Problems," Undated	12,107	
	Site QA Audit 7; No. 4 Audit of LILCO Purchasing Depart- ment, pg. 1, bot- tom paragraph; Audit 1 S&W, FQC Attachment, Item 1.A.1; S&W FQC Audit 1, Attached pg. 1, bottom portion re training; QA Audit 6, LILCO Purchasing Dept., pg. 3 re recom- mendation A;		12,175

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	Audit 81-11, LILCO Purchasing Dept., pg. 4, open item 1; and April 8, 1981 memo- randum from Gerecke, thru next to last paragraph, pg. 1		
	QA Audit 77-8, Find- ings 3 and 4 (Tab 19)		12,193
	EA 00, pg. 7, under the portion "drawings"		12,216
	EA 1, pg. 7, under the portion "drawings"		12,216
	EA 2, pg. 7, the portion relating to drawings		12,216
	EA 29, A.O. 093		12,216
	EA 34, A.O. 121		12,216
	EA 37, A.O. 137, Item 2		12,216
	EA 4, pgs. 2 & 3 relating to draw- ings		12,216
	EA 40, pg. 2, the portion discussing A.O. 156, and A.O. 156		12,224
	EA 8, pg. 2, Items C.2 and C.4		12,234
	EA 13, pg. 2, Item C.3		12,234

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	EA 30, A.O. 103		12,234
	EA 33, A.O. 115		12,234
	EA 21, A.O. 008, Item 2		12,381
	EA 33, pg. 1, Item(a) and A.O. 114		12,381
SC Ex. 69	Kirkpatrick, Lock- hart, Hill, Chris- topher & Phillips, "Torrey Pines Docu- ments":		
	Tab 1 - Program Plan for Indepen- dent Verification of Shoreham Nu- clear Power Plant, June 1982	12,237	
	Tab 2 - Status Re- port, June 18, 1982	12,237	
	Tab 3 - Status Re- port, July 16, 1982	12,237	
	Tab 4 - Status Re- port, August 20, 1982	12,237	
	Tab 5 - Status Re- port, September 17, 1982	12,237	
SC Ex. 70	Letter from Long Island Lighting Company to Martin, NRC, response to CAT inspection, 21 pgs., SNRC-743, July 28, 1982	12,337	12,533

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
SC Ex. 71	Kirkpatrick, Lockhart, Hill, Christopher & Phillips, "Shoreham Plant Configuration Reports," 7 documents tabbed 1 through 7	12,372	13,870
	Tab 1 - Plant Configuration Report for the Reactor Water Recirculation System		
	Tab 2 - Plant Configuration Report for the Control Rod Drive, Hydraulic Control System		
	Tab 3 - Plant Configuration Report for the Standby Liquid Control System (C-41)		
	Tab 4 - Plant Configuration Report for the Core Spray System (E-21)		
	Tab 5 - Plant Configuration Report for the Main Steam Isolation Valve Leakage Control System (E-32)		
	Tab 6 - Plant Configuration Report for the High Pressure Coolant Injection System (E-41)		
	Tab 7 - Plant Configuration Report for the Reactor		

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	Core Isolation Cooling System (E-51)		
SC Ex. 72	T. Frank Gerecke, "NRC Nonconfor- mances," handwritten, 3 pgs., Undated	12,395	
SC Ex. 73	"Column Heading Abbreviations," Stipulation on in- strumentation, me- chanical equipment, and electrical equip- ment surveillances for short-term stor- age, 14 pgs., Un- dated	12,460	13,855
SC Ex. 73A	Suffolk County, "Suffolk County Explanation of Queries Relative to Suffolk County Exhibit 73," Undated	13,854	13,855
SC Ex. 74	Memorandum from H. F. Faery, Jr., to Peter F. Baker, Jr., Stone & Web- ster, "CONSAP Sta- tus Report No. 20," August 18, 1982 (in- cludes CONQUIP sta- tus report)	12,501	
SC Ex. 75	Memorandum from H. F. Faery, Jr., to Peter F. Baker, Jr., Stone & Web- ster, "CAB TRAP Status Report No.8," August 26, 1982	12,522	

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
SC Ex. 76	Long Island Lighting Company, "Operational Quality Assurance OQA Procedure Development," QA PS 5.2, Revision 3, October 6, 1981	12,721	13,268
SC Ex. 77	Ellery Hammond, Manager, Nuclear Operations, Iowa Electric Light and Power Company, "EEI Nuclear Plant Staffing Survey, May 1980," 11 pages, No. 319-398-4180	12,987	15,176
SC Ex. 78	Suffolk County, "Suffolk County Offer of Proof," 2 page document with attachments, November 5, 1982	13,577	
SC Ex. 79	Suffolk County, "Suffolk County Offer of Proof (OQA)," 3 pages, November 9, 1982	13,578 (Bound In)	
SC Ex. 80	Long Island Lighting Company, "SPCR Response Summary Sheet," 3 pages, Undated	13,912 (Bound In at 13,913)	
SC Ex. 81	Suffolk County, "Suffolk County Submittal of Listing of Documents to be Moved Into Evidence," November 15, 1982	14,544 (Bound In at 14,545)	

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
SC Ex. 82	Suffolk County, "Supplemental Cross Examination Plan on Operating QA/QC," as a fur- ther Offer of Proof, 8 pages, Undated	14,562	
SC Ex. 83	Dennis M. Durand, Operating QA En- gineer, "Station Operational Quality Assurance Section Planning Report, May 1980 to July 1982," 1A11.920- LIM-RF-001	14,625 (Bound In at 14,627)	15,176
SC Ex. 84	Memorandum from J. Rivello, Plant Man- ager, Shoreham Nu- clear Power Station, to All SNPS Super- visors, "Overtime Control Guidelines," January 27, 1981	14,626 (Bound In at 14,627)	
SC Ex. 85	Long Island Lighting Company, listing with headings "Ac- tivities Descrip- tion," "Sept. 81 to Sept. 82," "Sept. 82 to March 83," and "March 83 to March 84," 1 page, Undated	14,626 (Bound In at 14,627)	15,176
SC Ex. 86	Long Island Lighting Company, listing en- titled "OQA Manhour Projection First Year of Operation," including 32 items, identified at bottom as Attachment 2, Undated	14,626 (Bound In at 14,627)	15,176

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
SC Ex. 87	U.S. Nuclear Regulatory Commission, Office of Nuclear Reactor Regulation, "Guidelines for Utility Management Structure and Technical Resources," Draft Report for Interim Use and Comment, NUREG-0731, September 1980	15,056	
SC Ex. 88	W.P. Haass, "Up- grading Quality Assurance Programmatic Guidance for Operating Nuclear Power Plants," Nuclear Safety 23(3):277-281, May-June 1982	15,081	
SC Ex. 89A	Prepared Direct Testimony of Richard B. Hubbard on Behalf of Suffolk County Regarding Suffolk County Contentions 12, 13, 14, and 15, Quality Assurance/ Quality Control, June 29, 1982	15,224	15,234
SC Ex. 89B	Attachments to Prepared Direct Testimony of Richard B. Hubbard on Behalf of Suffolk County Regarding Suffolk County Contentions 12, 13, 14, and 15, Quality Assurance/ Quality Control, June 29, 1982	15,225	15,234

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
SC Ex. 89C	Errata to Prefiled Direct Testimony of Richard B. Hubbard on Suffolk County Contentions 12 through 15, Undated	15,225	15,234
SC Ex. 89D	Supplemental Direct Testimony of Richard B. Hubbard in Re- sponse to Board Question, Undated	15,227	15,362 (Bound In)
SC Ex. 90	U.S. Atomic Energy Commission, "Licensing of Pro- duction and Utili- zation Facilities-- Quality Assurance Criteria for Nuclear Powerplants," 10 CFR Part 50, 34 <u>Fed. Reg.</u> 6599, April 17, 1969	15,512 (Bound In at 15,513)	
SC Ex. 91	U.S. Nuclear Regu- latory Commission, Office of Inspection and Enforcement, Report No. 50-322/ 82-26 for inspection on September 9- October 13, 1982, cover letter dated October 29, 1982	16,377	16,562

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
SC Ex. 92	Letter from Ronald C. Haynes, Regional Administrator, Region I, NRC, to M. S. Pollock, LILCO, "Systematic Assessment of Licensee Performance (SALP) and your Letter, SNRC-716, June 21, 1982," with 4 attachments including the SALP Report (Enclosure 2), July 22, 1982	16,420	17,428
SC Ex. 93	U.S. Nuclear Regulatory Commission, Office of Inspection and Enforcement, Report No. 50-322/82-27 for inspection on October 18-22, 1982, cover letter dated November 22, 1982	16,440	16,562
SC Ex. 94	U.S. Nuclear Regulatory Commission, Office of Inspection and Enforcement, Report No. 50-322/81-13 for inspection on August 11-14, 1981, cover letter dated October 8, 1981	16,504	16,562
SC Ex. 95	U.S. Nuclear Regulatory Commission, Office of Inspection and Enforcement, Report No. 50-322/82-02 for inspection on January 1-31, 1982, cover letter dated February 2, 1982	16,506	16,562

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
SC Ex. 96	U.S. Nuclear Regulatory Commission, Office of Inspection and Enforcement, Report No. 50-322/ 82-08 for inspection on March 30-May 10, 1982, cover letter dated May 27, 1982	16,512	16,562
SC Ex. 97	U.S. Nuclear Regulatory Commission, Office of Inspection and Enforcement, Report No. 50-322/ 81-14 for inspection on August 1-31, 1981, cover letter dated September 14, 1981	16,539	16,562
SC Ex. 98	U.S. Nuclear Regulatory Commission, Office of Inspection and Enforcement, Report No. 50-322/ 82-13 for inspection on May 11-June 18, 1982, cover letter dated July 14, 1982	16,541	16,562
SC Ex. 99	U.S. Nuclear Regulatory Commission, Office of Inspection and Enforcement, Report No. 50-322/ 81-20 for inspection on October 20- November 22, 1981, cover letter dated December 9, 1981	16,543	16,562

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
SC Ex. 100	U.S. Nuclear Regulatory Commission, Office of Inspection and Enforcement, Report No. 50-322/ 76-07 for inspection on July 22-25, 1976, cover letter dated July 12, 1976	16,564	16,610
SC Ex. 101	U.S. Nuclear Regulatory Commission, Office of Inspection and Enforcement, Report No. 50-322/ 82-15 for inspection on June 19-July 31, 1982, cover letter dated August 30, 1982	16,611	16,632
SC Ex. 102	U.S. Nuclear Regulatory Commission, Office of Inspection and Enforcement, Report No. 50-322/ 82-10 for inspection on April 26-29, 1982, cover letter dated May 24, 1982	16,619	16,632
SC Ex. 103	U.S. Nuclear Regulatory Commission, Office of Inspection and Enforcement, Report No. 50-322/ 74-02 for inspection on February 26- March 1, 1974, cover letter dated March 1974	16,692	16,816

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
SC Ex. 104	U.S. Nuclear Regulatory Commission, Office of Inspection and Enforcement, Report No. 50-322/ 81-22 for inspection on November 23- December 31, 1981, cover letter dated January 14, 1982	16,696	16,980
SC Ex. 105	U.S. Nuclear Regulatory Commission, Office of Inspection and Enforcement, Report No. 50-322/ 77-05 for inspection on February 28- March 3, 1977, cover letter dated April 7, 1977	16,712	16,816
SC Ex. 106	U.S. Nuclear Regulatory Commission, Office of Inspection and Enforcement, Report No. 50-322/ 76-06 for inspection on May 24-27, 1976, cover letter dated June 22, 1976	16,750	16,816
SC Ex. 107	U.S. Nuclear Regulatory Commission, Office of Inspection and Enforcement, Report No. 50-322/ 77-01 for inspection during January 1977, cover letter dated February 10, 1977	16,892	16,981

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
SC Ex. 108	U.S. Nuclear Regulatory Commission, Office of Inspection and Enforcement, Report No. 50-322/ 80-10 for inspection on June 17-20, 1980, cover letter dated August 12, 1980	16,931	16,981
SC Ex. 109	U.S. Nuclear Regulatory Commission, Office of Inspection and Enforcement, Report No. 50-322/ 82-24 for inspection on September 7-10, 1982, cover letter dated October 15, 1982	16,966	16,981
SC Ex. 110	Long Island Lighting Company, "Plant Configuration Review," Project Procedure P-309, Rev. A, 12/3/81, and Rev. B, 5/6/82	18,083	
SC Ex. 111	Handwritten memorandum from Suffolk County to LILCO, NRC Staff, and ASLE, "Suffolk County Torrey Pines Technology Examination," 5 pages, January 11 or 12, 1983	18,322 (Bound In at 17,897)	
SC Ex. 112	Joint Deposition of Richard B. Hubbard and Francisco J. Samaniego, Volume 1, pgs. 1-74, December 27, 1982; Volume 2, pgs.	19,064	19,064

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	75-238, December 28, 1982		
SC Ex. 112A	Memorandum from Anthony F. Earley, Jr. to Alan R. Dynner, Esq. and Michael S. Miller, Esq., "LILCO's Ini- tial Designation of Portions of the Deposition of Richard B. Hubbard and Francisco J. Samaniego," January 4, 1983	19,066 (Bound In)	19,067
SC Ex. 113	EG&G of Idaho for the U.S. Nuclear Regulatory Commis- sion, "Identification and Ranking of Nuclear Plants, Structures, Systems and Components and Graded Quality Assurance Guidelines," Draft, pgs. 1, 79-82, and a 14-page table entitled "BWR Structures, Systems and Components and QA Ranking," November 1982	19,577	
SC Ex. 114	Long Island Lighting Company, "Environ- mental Qualification Report for Class 1E Equipment, Shore- ham Nuclear Power Station Unit 1," two JIO's: "Equipment Justification," Mark No. 1D11*RE011A,B,C,D on Radiation Moni- toring Detector (GE), Rev. 3, August 1982;	19,603 (Bound In at 19,606)	

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	and "Equipment Justification," Mark No. 1D11*RE017A,B on Radiation Monitoring Detector (GE), Rev. 4, October 1982		
SC Ex. 115	U.S. Nuclear Regu- latory Commission, Office of Inspec- tion and Enforce- ment, Report No. 50-322/79-07, cover letter, notice of violation, Appendix A, pages 1 through 5 of the report, cover sheet signed August 21, 1979	19,807	
SC Ex. 116A	Three handwritten pages entitled "Totals Returned From FQC, Week Ending 1-22-83, Group Summary," "Week Ending 2-1-83," and "Week Ending 2-8-83," Undated	19,991	20,003 (Bound In at 20,004)
SC Ex. 116B	One page computer printout entitled "Shoreham Nuclear Power Station Quality and Ac- countability Pro- gram, Generic Dis- position Summary, Report Period 01-27-83"	19,991	20,003 (Bound In at 20,004)
SC Ex. 117	Memorandum from James H. Conran to Franklin D. Coffman, Jr.,	20,724	

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	"Differing Professional Opinion," 2 pages with 23-page opinion attached, March 31, 1983 (includes Conran Affidavit as Appendix A) (portions read into the record starting at 20,742)		
Staff Ex. 1	Robert L. Rothman, Comparison of Regulatory Guide 1.60 Spectrum, anchored at 0.13g, with Shoreham SSE spectrum, anchored at 0.2g, handwork on log-log scale, Undated	4170	4171
Staff Ex. 2A	U.S. Nuclear Regulatory Commission, Office of Nuclear Reactor Regulation, "Safety Evaluation Report Related to the Operation of Shoreham Nuclear Power Station, Unit No. 1," NUREG-0420, April 1981	4560	4560
Staff Ex. 2B	U.S. Nuclear Regulatory Commission, Office of Nuclear Reactor Regulation, "Safety Evaluation Report Related to the Operation of Shoreham Nuclear Power Station, Unit No. 1," Supplement No. 1 to NUREG-0420, September 1981	4560	4560

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
Staff Ex. 2C	U.S. Nuclear Regulatory Commission, Office of Nuclear Reactor Regulation, "Safety Evaluation Report Related to the Operation of Shoreham Nuclear Power Station, Unit No. 1," Supplement No. 2 to NUREG-0420, February 1982	4560	4560
Staff Ex. 3	Letter from P. Shewmon, Chairman, Advisory Committee on Reactor Safeguards, to Nunzio J. Palladino, Chairman, NRC, "Comments on Proposed Policy Statement on Safety Goals for Nuclear Power Plants (NUREG-0880, A Discussion Paper)," June 9, 1982	6226 (Bound In)	
Staff Ex. 4	Memorandum from William J. Dircks, Executive Director for Operations, NRC, to the Commissioners, "Performance of Probabilistic Risk Assessment or Other Types of Special Analyses at High Population Density Sites," SECY-81-25, January 12, 1981	6814 (Bound In at 6815)	
Staff Ex. 5	Memorandum from Brian K. Grimes, Program Director, Emergency Preparedness Program Office,	6814 (Bound In at 6815)	

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	NRC, to Harold R. Denton, Director, Office of Nuclear Reactor Regulation, NRC, "Candidate Sites for Risk Studies," April 30, 1980		
Staff Ex. 6	U.S. Nuclear Regulatory Commission filing to the Atomic Safety and Licensing Board Panel on the Shoreham Nuclear Power Station, Unit 1, Operating License Hearing, on the status of SER open items 57.II.D.1 and 57.II.K.3.16 for Shoreham, pgs. 15, 16, and 18, June 29, 1982	8108	8108 (Bound In)
Staff Ex. 7	U. S. Nuclear Regulatory Commission, Office of Standards Development, "Instrumentation for Light-Water-Cooled Nuclear Power Plants To Assess Plant and Environs Conditions During and Following An Accident," Regulatory Guide 1.97 (Task RS 917-4), Revision 2, December 1980	9711	9712 (Bound In)

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
Staff Ex. 8	NRC Staff Testimony of Robert Gallo, John Gilray, George Rivenbark, James Higgins, and Lewis Narrow Regarding Quality Assurance, SC Contentions 12, 13, 14, and 15, with Professional Qualifications of Robert M. Gallo, Professional Qualifications of James C. Higgins, Professional Qualifications of Lewis Narrow, Professional Qualifications of George W. Rivenbark, and Qualifications and Experience of John William Gilray	16,246	16,248 (corrected qualifications bound in at 16,245)
Staff Ex. 8-1a	Letter from Eldon J. Brunner, Chief, Reactor Operations and Nuclear Support Branch, Region I, NRC, to Andrew W. Wofford, LILCO, "Inspection 50-322/79-05," May 4, 1979	16,246	16,248
Staff Ex. 8-1b	U.S. Nuclear Regulatory Commission, Office of Inspection and Enforcement, Region I, Report No. 50-322/79-05, Inspection on March 27-30, 1979, pgs. 5-6 and cover sheet signed April 30, 1979 and May 3, 1979	16,246	16,248
Staff Ex. 8-1c	Letter from Andrew W. Wofford, LILCO, to Eldon J. Brunner,	16,246	16,248

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	NRC, Region I, "NRC Inspection No. 79-05, Shoreham Nuclear Power Station - Unit No. 1, Docket No. 50-322," SNRC 393, May 24, 1979		
Staff Ex. 8-1d	U.S. Nuclear Regu- latory Commission, Office of Inspection and Enforcement, Region I, Report No. 50-322/80-06, Inspection on March 24-April 27, 1980, page 4 and cover sheet signed May 9, 13, and 14, 1980	16,246	16,248
Staff Ex. 8-2a	Letter from Eldon J. Brunner, NRC, Region I, to Andrew W. Wofford, LILCO, "Inspection 50-322/ 79-16," January 21, 1980	16,246	16,248
Staff Ex. 8-2b	U.S. Nuclear Regu- latory Commission, Office of Inspection and Enforcement, Region I, Report No. 50-322/79-16, Inspection on October 1-November 6, 1979, pages 4-7 and cover sheet signed December 11, 1979	16,246	16,248

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
Staff Ex. 8-2c	Letter from Andrew W. Wofford, LILCO, to Eldon J. Brunner, NRC, Region I, "NRC Inspection No. 79-16, Shoreham Nuclear Power Station - Unit No. 1, Docket No. 50-322," SNRC 464, February 21, 1980	16,246	16,248
Staff Ex. 8-2d	U.S. Nuclear Regulatory Commission, Office of Inspection and Enforcement, Region I, Report No. 50-322/80-06, Inspection on March 24-April 27, 1980, page 3 and cover sheet signed May 9, 13, and 14, 1980	16,246	16,248
Staff Ex. 8-2e	U.S. Nuclear Regulatory Commission, Office of Inspection and Enforcement, Region I, Report No. 50-322/80-09, Inspection on April 28-May 31, 1980, cover sheet signed June 25 and 30, 1980	16,246	16,248
Staff Ex. 8-3	A document detailing the "essential elements of LILCO's QA program description contained in the FSAR which satisfy Appendix B," 30 pages, Undated	16,246	16,248
Staff Ex. 9	Supplemental NRC Staff Testimony of Robert Gallo, John Gilray, George Rivenbark, James Higgins, and	16,249	16,260 (Bound in at 16,411-A)

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	Lewis Narrow Regarding Quality Assurance, SC Contentions 12, 13, 14, and 15		
Staff Ex. 10	Memorandum from R. Caruso, Project Manager, Licensing Branch No. 2, Division of Licensing, NRC, to B. Bordenick, Staff Attorney, Office of Executive Legal Director, NRC, "Resolution of Region I CAT Team Items Regarding HPCI Steam Drain Line Isolation Arrangement, and Reduction of Drywell Sprays," December 16, 1982	17,358 (Bound In)	
Staff Ex. 11	Memorandum from T.M. Novak, NRC, to E. Christenbury, NRC, "Shoreham- Staff Testimony Regarding Torrey Pines Report," December 17, 1982	19,295 (Bound In at 19,296)	
Staff Ex. 12	Letter from Richard W. Starostecki, Di- rector, Division of Project and Resident Programs, Region I, NRC, to M. S. Pol- lock, Vice President- Nuclear, LILCO, Janu- ary 19, 1983	19,747 (Bound In)	20,294
Staff Ex. 13	U.S. Nuclear Regu- latory Commission, Office of Inspec- tion and Enforce- ment, Report No.	19,750	20,295

<u>Exhibit Number</u>	<u>Description</u>	<u>Identified at Transcript Page</u>	<u>Admitted at Transcript Page</u>
	50-322/83-02 for inspection on Janu- ary 10-15, 1983, cover sheet signed January 19, 1983		
Staff Ex. 14	Letter from Darrell G. Eisenhut, Direc- tor, Division of Li- censing, Office of Nuclear Reactor Regulation, NRC, to M. S. Pollock, Vice President-Nuclear, LILCO, "FSAR Com- mitment for Non- Safety Related Items," February 18, 1983	20,811	20,812 (Bound In)
Staff Ex. 15	Letter from Darrell G. Eisenhut, Direc- tor, Division of Li- censing, Office of Nuclear Reactor Regulation, NRC, to M. S. Pollock, Vice President- Nuclear, LILCO, "FSAR Commitment for Non-Safety Re- lated Items," March 7, 1983	20,811	20,812 (Bound In)