

6/22/79

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)

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Docket No. 50-322

APPLICANT'S RESPONSE TO SC'S JUNE 6, 1979 DISCOVERY REQUEST

Suffolk County (SC) requested certain information from the Applicant in Appendices A and B of its Second Set of Interrogatories and Notice to Produce, dated June 6, 1979. The Applicant's response to this discovery request is enclosed.

Respectfully submitted,

LONG ISLAND LIGHTING COMPANY

F. Case Whittemore

F. Case Whittemore

W. Taylor Reveley, III
Hunton & Williams
707 East Main Street
Richmond, Virginia 23212

DATED: June 22, 1979

428 024

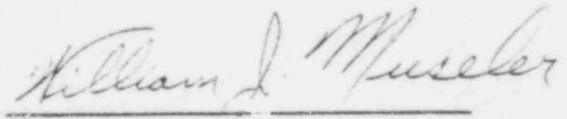
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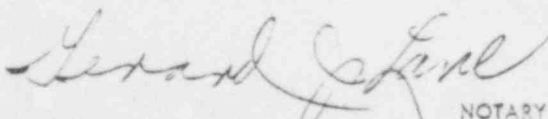
AFFIDAVIT

STATE OF NEW YORK)
: SS:
COUNTY OF SUFFOLK)

WILLIAM J. MUSELER, being duly sworn, states that he is Assistant Project Manager for the Shoreham Nuclear Power Station; that the attached LILCO Responses to SC's June 6, 1979 Discovery Request were prepared under his supervision and direction; and that statements contained therein are true and correct to the best of his knowledge, information, and belief.


WILLIAM J. MUSELER

Sworn to before me this
20th day of June, 1979.


NOTARY PUBLIC

GERARD J. LANE
NOTARY PUBLIC, State of New York
No. 30-45023-9
Qualified in Nassau County
Commission Expires March 30, 1981

428 025

LILCO RESPONSES TO SC'S JUNE 6, 1979 DISCOVERY REQUEST

APPENDIX "A"

A. Relating to Record Keeping

Q.1 Are the LILCO Shoreham construction and design documents on microfiche or hard copy?

A.1 As indicated in ¶ 4 of the Affidavit of Joseph P. Novarro, dated May 25, 1979, which was attached to the Applicant's May 29, 1979 pleading, E&DCR's are maintained in both hard copy and microfilm form.

Q.2 Does LILCO retain originals of all these documents on site?

A.2 As indicated in ¶ 4 of Mr. Novarro's May 25, 1979 Affidavit, the originals of E&DCR's are maintained in S&W's Boston office. At the Shoreham site, a reproducible hard copy of all E&DCR's is maintained by the Document Control Office and microfilm copies are maintained onsite and in a separate offsite storage facility.

Q.3 What is LILCO's practice with respect to the disposal of documents?

A.3 Working copies of E&DCR's are disposed of at the discretion of each individual recipient after they have served their function. Disposal of working copies does not affect the completeness of the files of originals and copies discussed in ¶ A.2 above.

Q.4 Does LILCO claim that such disposal is permitted by any regulation of the NRC; (a) if so, cite the regulation.

A.4 The NRC's regulation covering retention of QA records, such as E&DCR's, appears in 10 CFR Part 50, Appendix B,

Criterion XVII. This regulation requires that "sufficient records shall be maintained to furnish evidence of activities affecting quality." Retention of the originals and copies discussed in ¶ A.2 above meets this requirement. Retention of additional working copies is not covered in the regulation and, thus, an applicant is free to dispose of them at its discretion.

B. Relating to Cable Tray Records

Q.1 Are the problems described in these records safety related?

A.1 LILCO does not know specifically which E&DCR's are in the possession of SC's counsel. Therefore, it can not state which of those E&DCR's, if any, raise safety-related questions. It should be noted that a check in the "Nuclear Safety Related (QA Cat. I)" box does not mean, necessarily, that the E&DCR raises a safety-related question. That is because this box is checked if the E&DCR concerns a Category I document regardless of whether resolution of the E&DCR could affect plant safety.

Q.2 With regard to any problems identified in LILCO's engineering and design coordination reports (hereinafter referred to as the "Reports") concerning cable trays, were FSAR changes required?; (a) if so, were such changes in the FSAR made and cite the sections.

A.2 If an E&DCR results in a modification that may conflict with something in the FSAR, then the assigned Responsible Engineer indicates this on the E&DCR by checking the appropriate box. The FSAR is periodically updated to

incorporate changes made to the plant design, including any conflicts that arise from E&DCR's. The E&DCR's that concern the cable trays, as is often the case, have not required any FSAR changes.

- Q.3 Was client approval requested and given with respect to such changes?; (a) if not, why not?
- A.3 For those E&DCR's with a check in the client approval "Required" box, LILCO approval was obtained. At the minimum, S&W must obtain LILCO approval prior to issuing any E&DCR that changes a Category I item to a lesser category. With regard to FSAR changes, LILCO reviews all such changes prior to issuance.
- Q.4 Has there been a quality assurance/quality control ("QA/QC") check with regard to such changes? (a) if yes, when was such QA/QC check performed and give the details thereof; (b) if not, why not.
- A.4 For those E&DCR's that receive a quality assurance check, the "Qual. Sys. Div. or Eng. Assur. Div." box is signed. This approval is required for E&DCR's that result in changes to quality assurance requirements.
- Q.5 What are the criteria for verification of implementation of any change or fix with respect to the cable trays?
- A.5 All E&DCR's affecting safety-related cable trays are verified by field quality control. These inspections demonstrate compliance with the latest drawing revisions and any applicable E&DCR's.

- Q.6 Who in the LILCO construction organization (which is deemed to refer also to Stone & Webster) makes the decision regarding QA/QC approval, client approval and FSAR change?
- A.6 E&DCR's are changes to engineering documents and, therefore, are answered by the engineering organization, or its designee. The assigned Responsible Engineer researches the matter, reaches a resolution, and decides whether QA approval, client approval, and an FSAR change are required. See Affidavit of Joseph P. Novarro at ¶ 3.
- Q.7 Is the person who makes that decision the lead engineer?; (a) if not, does the lead engineer or design engineer have to approve or sign off as to such change?
- A.7 As indicated in ¶ A.6 above, the assigned Responsible Engineer makes these initial decisions. Then, the Lead Engineer and the S&W Project Engineer (or their designees) review the Responsible Engineer's decisions and approve his recommended solution, if merited.
- Q.8 If the item as to which the change is made is safety class 1, have analysis [sic] been done of such change to reconfirm seismic and design adequacy?
- A.8 The Shoreham cable trays are designated as either safety-related or non-safety-related. When the design of a safety-related cable tray is changed, evaluations are performed to ensure that the tray still meets the applicable seismic and design criteria.

Q.9 What are the system identifiers?; (a) explain the numbering system for cable trays and safety related systems so as to permit determination of what the systems are.

A.9 The system identifiers, including those for safety-related systems, are listed in Attachment 1. The numbering system used for cable tray identification is described in Attachment 2.

C. Relating to County's Prior Letter to Chairman Bowers Dated May 17, 1979

Q.1 [Provide] a technical explanation and assessment of the documents referred to in [The Southhampton Press] article [of May 17, 1979] and those delivered to our office.

A.1 A technical explanation and assessment of the documents (E&DCR's) referred to in ¶ Q.1 above was provided in the Affidavit of Joseph P. Novarro. That Affidavit stated in ¶ 2 that E&DCR's are design control documents similar to those used at all U.S. nuclear projects. E&DCR's are used to ensure that specified engineering and design documents for the Shoreham plant are properly interpreted and that engineering evaluations of any requested changes to these documents are performed to demonstrate and document the acceptability of these changes. The procedures followed to prepare, review, and approve E&DCR's were outlined in ¶ 3 of Mr. Novarro's Affidavit. Moreover, ¶ 6 of that Affidavit indicated that NRC, S&W and LILCO personnel, as well as the ASME Code Committee Survey Team, have reviewed the Shoreham E&DCR system (including representative samples) and

found it to be in compliance with applicable engineering standards and NRC regulations. See NRC Staff (Hoeftling) letter to the Board, dated June 12, 1979.

To provide a specific technical assessment of the approximately 2000 E&DCR's that are apparently in the hands of SC's counsel would be unduly burdensome. If SC has specific questions on certain E&DCR's, LILCO will respond to those questions.

- Q.2a [Provide] a schedule or punch list of all incomplete items and engineering problems to date, giving details as to how any of such problems have been or are being taken care of.
- A.2a E&DCR's are the best source of information on these matters. LILCO agrees to make the E&DCR's available for perusal by SC's consultant.
- Q.2b [Provide] a list of design changes made in the field.
- A.2b Numerous E&DCR's have been approved and issued during the construction of Shoreham. It would be pointless and unduly burdensome to list each E&DCR. Moreover, SC's counsel apparently already has in hand a substantial number of representative E&DCR's.
- Q.2c [Provide] a list of instructions from LILCO's project engineering management to the field as to any changes needed to be made and their disposition.
- A.2c As to any design change that the LILCO Project Management Office believes is warranted, it recommends that S&W issue an E&DCR. That recommendation is then treated in

accordance with the normal E&DCR review procedure. No separate list of such recommendations is kept.

Q.2d The NRC should physically inspect the entire construction to make certain that it conforms to all of the NRC's requirements.

A.2d As already explained, the NRC Inspection and Enforcement effort at Shoreham has been and will continue to be more than adequate to ensure the safety of the plant. See Affidavit of Joseph P. Novarro at ¶¶ 5-6; NRC Staff (Hoefling) letter to the Board, dated June 12, 1979. Therefore, SC's request is unwarranted.

APPENDIX "B"

A. Relating to Variances

Q.1 How is the variance finally reflected in the drawings and materials available to the plant operators and the NRC?

A.1 The latest design information on a component or system consists of the latest applicable revisions to drawings and other materials plus any applicable E&DCR's. As necessary, drawings and other materials are updated periodically and at completion of the project to reflect changes approved on E&DCR's. This will produce a consolidated record of the final condition.

Q/A.2-4 These questions request certain information regarding the NRC's technical review process. Therefore, no response is made by the Applicant.

B. Relating to NRC and LILCO's Inspection Practices

Q/A.1-6 These questions request certain information regarding the NRC's Inspection and Enforcement effort. Therefore, no response is made by the Applicant.

Q.7 Has anybody in the LILCO construction organization inspected Shoreham drawings against complete systems installed to insure that the drawings reflect the "as built" systems, that the original design quality requirements are not violated and that the procedures specified by the drawings are followed?; (a) if so, specify who in LILCO's construction organization has performed this responsibility and have any reports concerning such inspections been prepared?; (b) if so, provide copies; (c) if not, why not?

- A.7 As part of the "turnover" process prior to preoperational testing, LILCO Construction reviews each completed system for compliance with the latest design drawings, any applicable E&DCR's, and other applicable design documents. Then the quality organization reviews installation of these systems for compliance with the same criteria. The LILCO Construction and QA/QC reviews are carried out by a large number of engineers and inspectors from all disciplines. The results of the QA/QC review are contained in the individual component and system turnover packages. The number of inspection documents for each system may run into the thousands. In view of the bulk of this documentation, providing copies would be unduly burdensome. Therefore, LILCO will make these records available for perusal by SC's consultant.
- Q.8 Has LILCO checked these drawings randomly?; (a) has it checked them for all safety systems?; (b) has it checked them for all systems?
- A.8 The design documents are reviewed on a random basis by LILCO's QA Department, as well as by NRC personnel. Further, inspection documentation relating to ASME III piping systems is 100% reviewed by the "Authorized Nuclear Inspector," the independent representative on site who ensures compliance with the ASME code. As indicated in ¶ A.7 above, all design drawings, applicable E&DCR's,

and other applicable design documents for safety-related systems are reviewed against the actual installation by construction and quality assurance personnel. The installation of non-safety-related systems is checked by the construction organization.

Q.9 Did LILCO's check also include a records check to assure that all deviations and changes during construction have been verified and reflected on the "as built" drawings?

A.9 All deviations and changes are reflected in the final design documents as discussed in ¶ A.1 above and are verified as stated in ¶¶ A.7-.8 above.

Q.10 Are suggestions or complaints received by LILCO from craftsmen with regard to such practices? If so, how does LILCO integrate and utilize such suggestions and/or complaints to improve and verify proper construction practices?

A.10 To the best of our knowledge, no suggestions on the E&DCR initiation, review and approval process have been received directly from craftsmen by site resident engineering, Field Quality Control, or the S&W Site Engineering Office. From time to time such suggestions are received from LILCO, contractor, and Quality Assurance personnel. They are passed along to the appropriate LILCO and S&W personnel for evaluation and implementation, if warranted.

C. Relating to Hydrostatic Testing

Q.1 What critical hydrostatic tests regarding safety class fluid systems have been performed and are scheduled and on what dates?

A.1 The following ASME III fluid systems have been hydrostatically tested:

<u>System</u>	<u>Percentage of System Tested</u>
Core Spray	100%
High Pressure Coolant Injection	100
Reactor Core Isolation Cooling	100
Fuel Pool Cooling	100
Service Water	75
Reactor Building Closed Loop Cooling Water	75
Residual Heat Removal	50

The schedule for testing the remaining ASME III fluid systems is as follows:

<u>Date</u>	<u>System</u>
June 1979	Remainder of Reactor Building Closed Loop Cooling Water
July 1979	Remainder of Residual Heat Removal Reactor Pressure Vessel and all piping that forms the primary pressure boundary Standby Liquid Control System Main Steam Isolation Valve Leakage Control System Reactor Water Recirculation System
Aug. 1979	CRD Control Lines
Sept. 1979	Remainder of Service Water

Q.2 Provide test procedures and acceptance criteria for such systems.

A.2 The hydrostatic tests listed in ¶ A.1 above require the testing of hundreds of subsystems. Each subsystem test has its own test procedure and acceptance criteria. Because of the volume of this documentation, it would be unduly burdensome to supply copies of all test procedures

and acceptance criteria. Therefore, LILCO will make these documents available for perusal by the County's consultant.

Q.3 Provide reports as to the results of such tests.

A.3 The final reports on hydrostatic testing parallel the individual subsystem hydrostatic test procedures referred to in ¶ A.2 above. Again, because of the volume of these documents, LILCO will make them available for perusal by the County's consultant.

Q.4 Has the NRC I&E Division observed any of such tests? If so, provide copies of any inspection reports.

A.4 This question is addressed to the NRC. Therefore, no response is made by the Applicant.

Q.5 Is LILCO willing to allow the County's consultant to observe one of the tests chosen at random on safety class equipment?

A.5 Yes.

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***** SYSTEM INDEX *****

SHUREHAM NUCLEAR POWER STATION UNIT NO 1 LONG ISLAND LIGHTING COMPANY

ATTACHMENT 1

SYSTEM	SYSTEM NAME
A11	LILCO ORGANIZATION
A12	GENERAL ELECTRIC COMPANY
A13	UNITED ORGANIZATION
A15	CONSULTANTS & ENGRG SERVICES
A17	TECHNICAL ORGANIZATIONS
A21	U.S. NRC
A23	U.S. GOVERNMENT AGENCIES
A25	NEW YORK STATE AGENCIES
A27	LOCAL AGENCIES
A31	PLANT DESIGN CRITERIA
A33	ENVIRONMENTAL REPORT
A35	PSAR
A36	FINAL SAFETY ANALYSIS REPORT (FSAR)
A39	DESIGN CHANGES
A43	ENVIRONMENTAL/EFFLUENTS
A45	PERMANENT PLANT SPECIFICATIONS
A47	ASME CODES
A49	ASTM STANDARDS
A51	OTHER INDUSTRY CODES
A53	BUDGETS, COSTS & FINANCE
A55	INSURANCE
A57	PUBLIC RELATIONS
A59	INDUSTRIAL RELATIONS
A61	PERSONNEL
A63	LILCO COMMITTEE REPORTS
A65	REACTOR ASSEMBLY SYSTEM
A67	REACTOR WATER RECIRCULATION SYSTEM
A69	CONTROL ROD DRIVE SYSTEM
A71	FEEDWATER CONTROL SYSTEM
A73	STANDBY LIQUID CONTROL SYSTEM
A75	NEUTRON MONITORING SYSTEM
A77	REACTOR REMOTE SHUTDOWN SYSTEM
A79	REACTOR PROTECTION SYSTEM
A81	PLANT COMPUTER SYSTEM
A83	PROCESS RADIATION MONITORING SYSTEM
A85	AREA RADIATION AND MONITORING SYSTEM
A87	RESIDUAL HEAT REMOVAL SYSTEM
A89	CORE SPRAY SYSTEM
A91	MSIV LEAKAGE CONTROL
A93	HIGH PRESSURE COOLANT INJECTION SYSTEM
A95	REACTOR CORE ISOLATION COOLING SYSTEM
A97	FUEL SERVICE SYSTEM
A99	SERVICING ATOS SYSTEM
B01	REACTOR VESSEL SERVICING SYSTEM
B03	IN-VESEL SERVICING SYSTEM
B05	REFUELING SYSTEM
B07	STORAGE SYSTEM
B09	UNDER REACTOR VESSEL SERVICING SYSTEM
B11	START UP EQUIPMENT SYSTEM
B13	RADWASTE SYSTEM
B15	REACTOR WATER CLEAN-UP SYSTEM
B17	FUEL POOL COOLING AND CLEAN-UP SYSTEM
B19	MAIN CONTROL ROOM PANELS SYSTEM
B21	LOCAL PANELS AND RACKS SYSTEM
B23	AUXILIARY CONTROL PANELS SYSTEM
B25	NUCLEAR FUEL SYSTEM
B27	CONSTRUCTION SCHEDULES
B29	CONSTRUCTION & SAFETY REPORTS
B31	CONSTRUCTION SECURITY
B33	CONSTRUCTION FACILITIES
B35	PLANT START-UP
B37	HEATING AND AUXILIARY BOILER SYSTEM
B39	DOMESTIC WATER SYSTEM
B41	FIRE PROTECTION SYSTEM
B43	SANITARY SEWAGE SYSTEM
B45	CRB AND RBWS CHILLED WATER SYSTEM
B47	MAIN CHILLED WATER SYSTEM

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***** SYSTEM INDEX *****

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SHOREHAM NUCLEAR POWER STATION UNIT NO 1

LONG ISLAND LIGHTING COMPANY

SYSTEM	SYSTEM NAME
M61	BUILDING SERVICE MISCELLANEOUS SYSTEM
N11	MAIN STEAM SYSTEM
N21	CONDENSATE AND FEEDWATER SYSTEM
N22	HEATER RELIEF AND VENT LINES SYSTEM
N23	MISCELLANEOUS DRAINS - SECONDARY PLANT SYSTEM
N24	SEALING WATER SYSTEM
N25	RFP TURBINE SUPER INSTRUMENTS
N31	TURBINE SYSTEM
N32	TURBINE CONTROL SYSTEM
N33	SEAL AND RADWASTE STEAM SYSTEM
N34	LUBRICATING OIL SYSTEM
N35	MOISTURE SEPARATOR REHEATER AND HEATER DRAINS SYS
N36	EXTRACTION STEAM SYSTEM
N37	MAIN TURB SUPVSRV INST SYS
N38	REHEAT SYSTEM
N39	TURNING GEAR SYSTEM
N41	GENERATOR SYSTEM
N42	HYDROGEN SEAL SYSTEM
N43	GENERATOR STATOR COOLING SYSTEM
N44	VACUUM PRIMING AND AIR REMOVAL SYSTEM
N45	GENERATOR HYDROGEN AND CO2 PURGE SYSTEM
N51	EXCITATION SYSTEM
N52	CONDENSATE DEMINERALIZER SYSTEM
N62	RADWASTE OFF-GAS SYSTEM
N71	CIRCULATING WATER SYSTEM
O12	PLANT ADMINISTRATIVE
O20	PLANT SYSTEM DESCRIPTIONS
O21	PLANT OPERATING MANUAL PROCEDURES
O23	PLANT EMERGENCY PLANS
O25	PLANT INSERVICE INSPECTION
O31	ELEC PROD RPIS REC OTHER NUCLEAR STATIONS
O35	PERFORMANCE TESTING
O41	OPERATIONAL TRAINING/ORGANIZATION
O42	PLANT TRAIN PROGRS REC-SNPS
O51	PLANT RADIATION PROTECTION & SAFETY
O61	PLANT SECURITY
O63	STATION PLANNING/WORK SCHEDULES
O65	PLANT REV OF OPERAT COMM ROC
O66	PLANT NUCLEAR REVIEW BOARD
O71	PLANT MAINTENANCE/SURVEILLANCE
P11	CONDENSATE TRANSFER AND STORAGE SYSTEM
P21	DEMINERALIZED AND WATER MAKE-UP SYSTEM
P33	SAMPLE SYSTEM
P41	SERVICE WATER SYSTEMS
P42	REACTOR BUILDING CLOSED LOOP COOLING WATER SYSTEM
P43	TURBINE BUILDING CLOSED LOOP COOLING WATER SYSTEM
P50	COMPRESSED AIR SYSTEM
P63	RADWASTE SOLIDS HANDLING SYSTEM
P64	METEOROLOGICAL MONITORING
P65	VIBRATION MONITORING
P71	LOW CONDUCT & SW DRAIN SYSTEM
R11	STATION TRANSFORMERS SYSTEM NSS AND RSS SYSTEM
R13	ISOLATED PHASE BUS SYSTEM
R21	NON-SEGREGATED BUSES SYSTEM
R22	METAL-CLAD SWITCHGEAR SYSTEM
R23	LOAD CENTERS & UNIT SUBSTATION
R24	MOTOR CONTROL CENTERS SYSTEM
R31	POWER CABLE AND WIRE SYSTEM
R32	CONTROL CABLE AND WIRE SYSTEM
R33	CONDUITS AND TRAYS SYSTEM
R34	AUXILIARY GROUNDING SYSTEM
R35	AC INSTRUMENT POWER SYSTEM
R36	AC UNINTERRUPTIBLE-VITAL-POWER SYSTEM
R41	DC INSTRUMENT POWER SYSTEM-48V DC-
R42	BATTERY POWER SYSTEM-125V DC-
R43	DIESEL EMERGENCY POWER SYSTEM
R51	COMMUNICATION SYSTEM-INTRAPLANT-
R55	CLOSED CIRCUIT TV SYSTEM
R56	TEST CABLE

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SHOREHAM NUCLEAR POWER STATION UNIT NO 1 LONG ISLAND LIGHTING COMPANY

SYSTEM	SYSTEM NAME
R61	UNIT PROTECTION/METERING SYS
R62	STATION PROTECTION & METERING
R71	FIRE DETECTION AND STATION SECURITY
R81	HEAT TRACING
S11	MAIN POWER TRANSFORMERS SYSTEM
S21	PLANT SUBSTATIONS
S22	138 KV MAIN TRANS BREAKERS
S23	138 KV KV SWITCHYARD POTENTIAL TRANS
S24	138 KV KV SWITCHYARD RELAY PNLS
T11	REACTOR BUILDING SUBSTRUCTURE SYSTEM TO ELEV 8FT
T22	REACTOR BUILDING-SUPERSTRUCTURE SYSTEM
T23	REACTOR PRIMARY CONTAINMENT LINER SYSTEM
T25	CHEMICAL CLEANING SYSTEM
T26	REACTOR BUILDING ARCHITECTURAL FINISHES SYSTEM
T31	REACTOR BUILDING CRANES-HOISTS AND ELEVATORS SYS
T41	REACTOR BUILDING VENTILATION SYSTEM
T45	REACTOR BUILDING DRAINS AND VENTS SYSTEM
T46	REACTOR BUILDING STANDBY VENTILATION SYSTEM
T47	PRIM CONT COOLING SYSTEM
T48	PRIM CONT ATMOSPHERE
T51	PRIM CONT INTEGR LEAK TEST SYSTEM
T52	REACTOR BUILDING LIGHTING SYSTEM
U21	TURBINE BUILDING SUBSTRUCTURE SYSTEM TO ELEV 15FT
U22	TURBINE BUILDING SUPERSTRUCTURE SYSTEM
U24	TURBINE BUILDING PEDESTAL SYSTEM
U25	TURBINE BUILDING ARCHITECTURAL FINISHES SYSTEM
U31	TURBINE BUILDING-CRANES-HOISTS AND ELEVATORS SYS
U41	TURBINE BUILDING VENTILATION SYSTEM
U51	TURBINE BUILDING LIGHTING SYSTEM
U61	DECONTAM RM EQUIPMENT
V21	RADWASTE BUILDING SUBSTRUCTURE SYSTEM
V22	RADWASTE BUILDING SUPERSTRUCTURE SYSTEM
V25	RW LOG-FINISH
V31	RADWASTE BUILDING-CRANES-HOISTS AND ELEVATORS-SYS
V41	RADWASTE BUILDING-VENTILATION SYSTEM
V51	RADWASTE BUILDING-LIGHTING SYSTEM
W12	SCREENWELL CANALS SYSTEM
W21	SCREENWELL SUBSTRUCTURE TO ELEV 20FT-6IN SYSTEM
W22	SCREENWELL SUPERSTRUCTURE SYSTEM
W23	CHLORINATION SYSTEM
W25	SCREENWELL ARCHITECTURAL FINISHES SYSTEM
W34	PLANT WAREHOUSE
X35	GAS STORAGE SYSTEM
X36	FIRE PUMPHOUSE
X37	SECURITY BLDG
X38	OFFICE AND SERVICE BUILDING SYSTEM
X39	AUX BOILER AND MG SET BUILDING
X40	CONTROL ROOM BUILDING
X41	MISCELLANEOUS HVAC SYSTEM
X43	OFFICE BUILDING-HVAC SYSTEM
X46	DIESEL GENERATOR VENTILATION SYSTEM
X60	CONTROL ROOM AIR CONDITIONING SYSTEM
X61	SITE EXCAVATION & BACKFILL
V11	FINISH GRADING & LANDSCAPING
V12	ROADS AND WALKS
V23	BRIDGE DUCK & WATERFRONT
V25	FENCING
V27	CONCRETE BATCH PLANT
V30	MISCELLANEOUS YARD STRUCTURES
V41	CATHODIC PROTECTION SYSTEM
V46	YARD LIGHTING
V51	TOOLS AND RIGGING
Z11	PLANT MEASURING INSTRUMENTATION
Z21	PLANT VEHICLES
Z51	OVERALL PLANT EQUIPMENT
Z61	SPARE COMPONENTS
Z91	SPARE INSTRUMENTATION
Z92	SPARE VALVES
Z93	POST ACCIDENT MONITORING

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***** S Y S T E M I N D E X *****

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SHUREHAM NUCLEAR POWER STATION UNIT NO 1 LONG ISLAND LIGHTING COMPANY

SYSTEM

SYSTEM NAME

294
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SEISMIC MONITORING
STARTUP TRANSIENT MONITORING

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CABLE TRAY SYSTEM IDENTIFICATION
SHOREHAM NUCLEAR POWER STATION, UNIT 1

RACEWAY NO.

U	T	S					C	C	C
N	Y	E		N			O	O	O
I	P	R		U			L	N	N
T	E	V		M			O	D	D
		I		B			R	U	U
		C		E			/	/	
		E		R			A	N	

UNIT - The number is the station unit number (i.e., Shoreham Nuclear Station Unit 1) and all raceways associated with the specified unit shall carry that unit's number. Common raceways between Shoreham Nuclear Station Unit 1 and any other stations shall always be zero (0).

TYPE - The type character indicates the type of raceway to be scheduled. This character shall always be an alpha-character.

A - Armored Cable or Direct Burial Cable
 C - Conduit
 D - Duct and Concealed Conduit over 20 feet
 F - Floor Sleeves and Concealed Conduit 20 feet or under
 T - Tray and Troughs
 U - Trenches and Block-outs
 W - Wall Sleeves

SERVICE - The service character is an alpha symbol which indicates the service of cable to be carried in the designated raceway.

H - 1st Voltage Level above 600 Volts (5KV Power)
 L - 600 Volt Power
 K - 600 Volt Power (Derated)
 C - Control
 X - Instrumentation

NUMBER - The group of three numbers assigned to specify the individual raceway. This number consists of 3 numeric characters, within the limits of 001 through 999.

COLOR - The color character is always an alpha symbol used to designate the electrical division for safety systems or that the cable tray is non-safety-related.

R - Red	}	Safety Systems
B - Blue		
O - Orange		
N - Non-safety Systems		

CONDU/A - When this character is for conduit identification, it will be a letter or blank. When used for identification of sleeves or duct, it will be numeric.

CONDU/N - This character is also used for conduit branch identification and will be numeric. When not used, it will be left blank.

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

CERTIFICATE OF SERVICE

I hereby certify that copies of APPLICANT'S RESPONSE TO SC'S JUNE 6, 1979 DISCOVERY REQUEST were served upon the following by first-class mail, postage pre-paid, on June 22, 1979.

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

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

Dr. Oscar H. Paris
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
U.S. Nuclear Regulatory Commission
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Atomic Safety and Licensing
Board Panel
U.S. Nuclear Regulatory Commission
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