NOV 20 1984

Docket No.: 50-322

Mr. John D. Leonard
Vice President-Nuclear Operations
Long Island Lighting Company
Shoreham Nuclear Power Station
P.O. Box 618, North Country Road
Wading River, New York 11792

Dear Mr. Leonard:

SUBJECT: SHOREHAM NUCLEAR POWER STATION DRAFT LICENSE

As you are aware, the staff is preparing a license for the Shoreham Nuclear Power Station. Enclosed is a draft copy of the license. It is provided for your information, review, and comment to insure that it accurately reflects the commitments required of you as described in the FSAR, SER, and other documentation.

We request that you review the draft license and provide any comments in writing within 10 days.

For any questions regarding this draft license contact the Shoreham Project Manager, R. Caruso at 301-492-8392.

Sincerely,

Original signed by
Darrell G. Eisenhut

Thomas M. Novak, Assistant Director
for Licensing

Enclosure:
As stated

DISTRIBUTION:

Docket File	NGrace
NRC PDR	Vogler, OELD
Local PDR	ACRS (16)
RRC System	
NSIC	
LB#2 Reading	
DEisenhut	
HDenton	
RStarostecki, RI	
EHylton	
RMartin	
EJordan	

*See previous concurrence

LB#2/DL	*LB#2/DL	LB#2/DL	LB#2/DL	LB#2/DL
BSiegel:jj	RCaruso	ASchwencer	TMNovak	DEisenhut
11/ /84	10/30/84	11/08/84	11/14/84	11/20/84

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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Thomas M. Novak, Assistant Director
for Licensing
Division of Licensing

Enclosure:
As stated

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

LONG ISLAND LIGHTING COMPANY

DOCKET NO. 50-322

SHOREHAM NUCLEAR POWER STATION

FACILITY OPERATING LICENSE

License No. NPF-19

1. The Nuclear Regulatory Commission (the Commission or the NRC) having found that:

   A. The application for a license filed by the Long Island Lighting Company (the licensee) complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I, and all required notifications to other agencies or bodies have been duly made;

   B. Construction of the Shoreham Nuclear Power Station (the facility), has been substantially completed in conformity with Construction Permit No. CPPR-95 and the application, as amended, the provisions of the Act, and the regulations of the Commission;

   C. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission (except as exempted from compliance in Section 2.D. below);

   D. There is reasonable assurance: (i) that the activities authorized by this operating license can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I (except as exempted from compliance in Section 2.D. below);

   E. The Long Island Lighting Company is technically qualified to engage in the activities authorized by this operating license in accordance with the Commission's regulations set forth in 10 CFR Chapter I;

   F. The licensee has satisfied the applicable provisions of 10 CFR 140, "Financial Protection Requirements and Indemnity Agreements", of the Commission's regulations;

G. The issuance of this license will not be inimical to the common defense and security or to the health and safety of the public;

H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of Facility Operating License No. NPF-19 subject to the condition for protection of the environment set forth in the Environmental Protection Plan attached as Appendix B, is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied; and

I. The receipt, possession, and use of source, byproduct, and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40 and 70.

2. Based on the foregoing findings, the Partial Initial Decision issued by the Atomic Safety and Licensing Board on September 21, 1983, the Order Reconsidering Summary Disposition of Phase I and Phase II Low-Power Testing issued by the Atomic Safety and Licensing Board dated September 5, 1984, the Initial Decision issued by the Atomic Safety and Licensing Board on October 29, 1984, and Commission Order CLI-84-21, ★ dated November 21, 1984, regarding this facility, Facility Operating License No. NPF-17 is hereby issued to the Long Island Lighting Company (the licensee) to read as follows:

A. This license applies to the Shoreham Nuclear Power Station, a boiling water nuclear reactor and associated equipment (the facility), owned by the licensee. The facility is located in Suffolk County, New York, and is described in the licensee's Final Safety Analysis Report, as supplemented and amended, and the licensee's Environmental Report, as supplemented and amended.

B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses the Long Island Lighting Company (LILCO, the licensee):

(1) Pursuant to Section 103 of the Act and 10 CFR Part 50, to possess, use, and operate the facility at the designated location in Suffolk County, New York, in accordance with the procedures and limitation set forth in this license;

(2) Pursuant to the Act and 10 CFR Part 70, to receive, possess, and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;

(3) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed neutron sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

(4) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and

(5) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations and orders of the Commission now or hereafter in effect except as exempted from compliance as described in Section 2.D. below; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The licensee is authorized to operate the facility at reactor core power levels not in excess of 2436 megawatts thermal (100% rated power) in accordance with the conditions specified herein. Pending Commission approval this license is restricted to fuel loading and cold criticality testing at power levels not to exceed 0.001 precent of full power (24.36 kilowatts thermal).

(2) Deferred Items

The preoperational tests, startup tests and other items identified in Attachment 1 to this license shall be completed as specified. Attachment 1 is hereby incorporated into this license.

(3) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

(4) Fire Protection Program (Section 9.5, SER, SSER1, SSER2, SSER3)

a. The licensee shall maintain in effect all provisions of the approved fire protection program as described in the Fire Hazard Analysis Report and the Final Safety Analysis Report for the facility through Revision 33 and as approved in the SER through Supplement 3, subject to provisions b and c below.

b. The licensee may make no change to features of the approved fire protection program which would decrease the level of fire protection in the plant without prior approval of the Commission. To make such a change the licensee must submit an application for license amendment pursuant to 10 CFR 50.90.

c. The licensee may make changes to features of the approved fire protection program which do not decrease the level of fire protection without prior Commission approval, provided:

(i) such changes do not otherwise involve a change in a license condition or technical specification or result in an unreviewed safety question (see 10 CFR 50.59).

(ii) such changes do not result in failure to complete the fire protection program approved by the Commission prior to license issuance.

The licensee shall maintain, in an auditable form, a current record of all such changes including an analysis of the effects of the change on the fire protection program and shall make such records available to NRC inspectors upon request. All changes to the approved program made without prior Commission approval shall be reported annually to the Director of the Office of Nuclear Reactor Regulation together with supporting analyses.

(5) Initial Test Program (Section 14, SER, SSER1)

The licensee shall conduct the post-fuel-loading initial test program described in Section 14 of the Final Safety Analysis Report, as amended, without making any major modifications unless such modifications have prior NRC approval. Major modifications are defined as:

(a) Elimination of any safety-related test*;

*Safety-related tests are those tests which verify the design, construction, and operation of safety-related systems, structures, and equipment.

(b) Modifications of objectives, test methods or acceptance criteria for any safety-related test;

(c) Performance of any safety-related test at a power level different from that stated in the licensee's Final Safety Analysis Report by more than 5 percent of rated power;

(d) Failure to satisfactorily complete the entire initial startup test program by the time core burnup equals 120 effective full power days;

(e) Deviation from initial test program adminstrative procedures or quality assurance controls described in the licensee's Final Safety Analysis Report; and

(f) Delays in the test program in excess of 30 days (14 days if power levels exceeds 50 percent) concurrent with power operation. If continued power operation is desired during a delay, the licensee shall provide justification that adequate testing has been performed and evaluated to demonstrate that the facility can be operated at the planned power level with reasonable assurance that the health and safety of the public will not be endangered.

(6) Inservice Inspection and Testing Program (Section 5.2.4 SER, Section 6.6 SER, SSER1, SSER4, Section 4.5.2, SSER7)

a. Within 6 months of the date of this license, the licensee shall submit an initial inservice inspection program for NRC staff review and approval.

b. The initial inservice inspection program will be evaluated after the applicable ASME Code Edition and Addenda can be determined based on Section 50.55a(b) of 10 CFR Part 50 and before the first refueling outage (reference SER Sections 5.2.7, 6.6, SSER1 Sections 5.2.7, 6.6, SSER4 Section 6.6).

c. The development of the Shoreham ISI program shall incorporate provisions involving (1) the use of Monticello-type techniques for the detection of intergranular stress corrosion cracking, and (2) an inspection program scope consistent with that in Section 5.2.3.2.1.3 of the Preliminary Safety Analysis Report for the Perry plant (Docket 50-440). The licensee shall also notify the NRC staff of any significant or substantive changes in the intended inspection program, and shall continue to evaluate and implement, where practicable, state-of-the-art improvements in scope or methods of implementing the ISI program. (Section 4.5.2, SSER7).

(7) Surveillance of Control Blades (Section 4.2.3.14, SER)

Within 30 days after plant startup following the first refueling outage, the licensee shall comply with Items 1, 2, and 3 of IE Bulletin No. 79-26, Revision 1, "Boron Loss from BWR Control Blades", and submit a written response on Item 3.

(8) NUREG-0737 Conditions (Section 22, SER)

The licensee shall complete the following conditions to the satisfaction of the NRC. These conditions reference the appropriate items in Section 22.2, "TMI Action Plan Requirements for Applicants for Operating Licenses," in the Safety Evaluation Report and Supplements 1 and 4, of NUREG-0420.

(a) Shift Technical Advisor (Section 22.2 (Item I.A.1.1) SSER1)

The licensee shall submit the qualifications each backup shift technical advisor (STA) is expected to have at the completion of their training program, for review and approval by the NRC staff prior to assigning them to STA duty. This license condition shall terminate upon the completion of NRC staff approval of the first group of seven backup STAs.

(b) Control Room Design Review (Section 22.2 (Item I.D.1) SSER1, SSER3)

Prior to operation at one hundred percent of rated power, the licensee shall mark setpoints and normal operating values or ranges on all recorder scales in the control room. All meters and recorders in the control room shall be marked with normal operating limits, trip values, and alarm points.

(c) Post Accident Sampling Capability (Section 22 (Item II.B.3) SSER4)

Prior to startup following the first refueling outage, the licensee shall submit to the NRC staff a modified core damage procedure that includes an estimation of cladding failure due to fuel overheating, as well as cladding failure and core melt for review and approval. This procedure shall incorporate the use of other plant parameters as indicators of core damage.

(d) Emergency Response Capabilities (Generic Letter 82-33, Supplement 1 to NUREG-0737)

The licensee shall complete emergency response facilities and capabilities as required in Attachment 2 of this license.

(9) Equipment Qualification (Section 3.11, SSER7)

Prior to March 31, 1985 the licensee shall environmentally qualify all electrical equipment according to the provisions of 10 CFR 50.49.

(10) Radon

This license will be subject to the ultimate outcome of the consolidated radon proceeding currently underway in Docket Nos. 50-277, 50-278, 50-320, 50-354 and 50-355.

(11) Formal Federal Emergency Management Agency Finding

In the event that the NRC staff finds that the lack of progress in completion of the procedures in the Federal Emergency Management Agency's final rule, 44 CFR Part 350, is an indication that a major substantial problem exists in achieving or maintaining an adequate state of emergency preparedness, the provisions of 10 CFR Section 50.54 (s)(2) will apply.

(12) Instrumentation and Controls Systems Required for Safe Shutdown (Section 7.4.3 SSER3, SSER4, SSER 8)

Prior to startup following the first refueling outage, the licensee shall implement and document all of the required design changes discussed in Attachment 5 and shall perform an acceptable procedure verification test for the remote shutdown system design.

(13) Concrete and Structural Steel Internal Structures (Section 3.8.2 SER, SSER1, SSER3, SSER4)

The licensee shall not operate the residual heat removal (RHR) system in the steam condensing mode (SCM) during any normal plant operations. However, the SCM may be used, in accordance with the provisions of 10 CFR 50.54 (x) and (y), as a last resort when all other means of core or containment cooling have been lost.

(14) Containment Isolation System (Section 6.2.3 SER, SSER1, SSER3, SSER4, SSER 8)

Prior to start-up following the first refueling outage the licensee shall install two isolation barriers in series in all instrument lines penetrating containment that are not part of the automatic reactor protection system. Proposals from the licensee on how this shall be accomplished as well as details on the necessary design changes, shall be submitted for NRC staff review and approval.

(15) Solid Radioactive Waste Processing System

Radioactive waste shall not be processed for shipment offsite by the solid radwaste system until after the NRC staff has completed its review of the licensee's solid radwaste process control program and has issued its safety evaluation.

(16) Low Power Exemption Request License Condition (SSER 5, SSER 6)

The license conditions described in Attachment 4 apply to operation of the power plant as described by the licensee on May 22, 1984 in its request for exemption from the requirements of General Design Criterion 17.

(17) Independent Design Review (IDR) (Section 17.7, SSER 7)

Prior to exceeding five percent of rated power, the licensee shall incorporate the studies and evaluations performed by the licensee or its contractors as a result of the IDR, into the existing plant calculation and documentation packages, in order to provide a complete set of records to be used for maintenance, replacement, repair, and modification of equipment.

(18) Seismic and Dynamic Qualification (Section 3.10, SSER 3, SSER 7, SSER 8)

(a) Prior to exceeding five percent of rated power, the licensee shall complete the qualification, documentation, and installation of:

(1) Radiation Monitoring System Panels (Mark 1D11*PNL-117A and B)

(2) Radiation Monitoring System Pumps (Mark 1D11*P-126, 134)

(b) Prior to its use as an invessel storage area for irradiated fuel bundles, the licensee shall complete qualification and documentation for the invessel rack (F16-E006/1F16 *FAK-09)

(19) Operating Staff Experience Requirements (Section 13, SSER 8)

The licensee shall have on shift operators that meet the requirements described in Attachment 3.

(20) Fission Gas Release and Ballooning and Rupture (Section 4.2.3.2 and 4.2.3.3 SER)

The licensee shall reanalyze the ECCS performance for the second cycle and beyond utilizing models that (a) account for the efforts of high burn-up fission gas release and prepressurized fuel, (b) accomodate the information in NUREG-0630 including its effects on local oxidation, and (c) have been reviewed and approved by the NRC.

D. The facility requires exemptions from certain requirements of Appendix A and J to 10 CFR Part 50. These include (a) exemption for operation at up to five percent of rated power from General Design Criterion (GDC) 2 of Appendix A, for the seismic qualification of the Radiation Monitoring System Panels (Mark 1 D11*PNL-117 A and B) and Radiation Monitoring System Pumps (Mark 1 D11*P-126, 134), (Section 3.10, SSER 3, SSER 7, SSER 8), (c) exemption from GDC 56, the installation prior to startup following the first refueling outage of two isolation barriers in series in all instrument lines penetrating containment that are not part of the automatic reactor protection system (Section 6.2.3, SER, SSER 1, SSER 3, SSER 4, SSER 8), (c) exemption from the requirement of paragraphs II.H.4 and III.C.2 of Appendix J, the leak rate testing of the Main Steam Isolation Valves (MSIVs) at the peak calculated containment pressure, Pa, and exemption from the requirements of paragraph III.C.3 of Appendix J that the measured MSIV leak rates be included in the summation for the local leak rate (Section 6.2.5.1 of the SER and SSER 8), (d) exemption until startup of the first refueling outage from GDC 19, that the remote shutdown system design should provde redundant safety-grade capability to achieve and maintain hot shutdown and subsequently cold shutdown from a location or locations remote from the contral room, assuming no fire damage to any required systems and equipment and assuming no accident has occured (Section 7.4.3 of SSER 3, SSER 4, and SSER 8), and (e) exemption from GDC 17 for operation at up to five percent of rated power, that the facility shall be provided with a fully qualified, onsite source of emergency AC power (ASLBP No. 77-347-OIC-OL, dated October 29, 1984). These exemptions are authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest. Therefore these exemptions are hereby granted pursuant to 10 CFR 50.12. With the granting of these exemptions the facility will operate, to the extent authorized herein, in comformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission.

E. The licensee shall maintain in effect and fully implement all provisions of the Commission approved physical security plan, guard training and qualification plan, and safeguards contingency plan, including amendments made pursuant to the authority of 10 CFR 50.54(p). The approved plans, which contain Safeguards Information as specified in 10 CFR 73.21, are collectively entitled: "Shoreham Nuclear Power Station Security Plan Revision 9" dated Novmeber 5, 1984 (submitted November 5, 1984)*; "Shoreham Nuclear Power Station Safeguards Contingency Plan", dated May 29, 1984 (submitted June 1, 1984) as revised by pages dated June 8, 1981; and the "Shoreham Nuclear Power Station Guard Training and Qualification Plan", Revision 2 dated November 18, 1983 (transmittal letter dated December 14, 1983).

*It is noted that Revision 9 supersedes all previous plan submittals and should be considered the approved physical security plan

F. With exception of 2.C(3), the licensee shall report any violations of the requirements contained in Sections 2.C and 2.E of this license within twenty-four (24) hours. Initial notification shall be made in accordance with the provisions of 10 CFR 50.72 with written followup in accordance with the procedures described in 10 CFR 50.73 (b), (c), and (e).

G. The licensee shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1954, as amended, to cover public liability claims.

H. This license is effective as of the date of issuance and shall expire at midnight on April 13, 2013.

FOR THE NUCLEAR REGULATORY COMMISSION

Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Attachments:
1. Attachment 1
2. Attachment 2, NUREG-0737 Supplement 1 Schedule
3. Attachment 3
4. Attachment 4
5. Attachment 5
6. Appendix A - Technical Specifications (NUREG-1012)
7. Appendix B - Environmental Protection Plan

Date of Issuance:

ATTACHMENT 1

1. Outstanding Items to be Completed Prior to Heatup and Low Power Testing Up to 1% Power (Phase III)

   a. Secure the portable emergency equipment lockers in the Reactor Building to preclude seismic-induced damage to equipment important to safety (Unresolved Item 84-23-01).

   b. Revise logic design to prevent spurious isolation of the High Pressure Coolant Injection system caused by a loss of power to the steam leak detection circuitry (Unresolved Item 84-32-02).

   c. Provide a solution to the construction deficiency reported by phone to Region I on October 15, 1984 regarding corrosion of the Service Water strainers (CDR 84-00-02).

2. Outstanding Items to be Completed Prior to Exceeding 5% Power

   a. Establish and implement a program for radioactive waste management which meets the requirements of IE Bulletin 79-19.

   b. Correct logic and circuitry to annunciate tripped relays which would otherwise disable diesel generator automatic starting (Unresolved Item 84-39-02).

   c. Revise alarm response procedures to adequately address maintenance-induced flooding in the Reactor Building (Unresolved Item 84-29-02).

   d. List the radio stations participating in the LILCo emergency broadcast system, in the Emergency Preparedness Brochure, and complete the installation of "pathfinder" signs at "major" roads, to resolve hearing contentions 11.E, J, K, L and M (Unresolved Item 84-29-04).

   e. Certify the establishment of operable emergency support facilities which meet the requirements of NUREG-0737 Item III.A.1.2.

   f. Comply with the requirements of NUREG-0737 Items III.A.1.1 and III.A.2 regarding Emergency Preparedness.

   g. Complete the installation and testing of communications and notification systems described in Emergency Plan implementing procedures (Unresolved Item 82-18-30).

h. Prepare and distribute public information material regarding actions to be taken by individuals within the emergency planning zone (Unresolved Item 82-18-34).

i. Incorporate all E&DCR's, and remove outdated drawings from files (Unresolved Item 84-20-01).

j. Evaluate and correct the cause of the April 14, 1983 failure to trip of tie-breaker 108-2, which ties emergency bus 103 to the Reverse Station Service Transformer (RSST) (Unresolved Item 84-10-01).

k. Certify the installation of a post accident sampling system which meets the criteria of NUREG-0737 Item II.B.3 (Unresolved Item 82-18-14).

l. Certify the installation of post-accident monitoring capability in accordance with NUREG-0737 Item II.F.1.

3. Outstanding Items to be Completed Prior to Completion of the Startup Test Program

a. Demonstrate the ability to collect representative airborne effluent samples (Unresolved Item 83-19-04).

b. Install check valves to preclude back-flow and siphoning from contaminated and non-contaminated systems to satisfy IE Bulletin 80-10 (Unresolved Item 84-25-06).

4. Outstanding Items to be Completed by the First Refueling Outage

a. Provide an analysis which addresses the corrosion of supports and all other components in the suppression pool, and provide a program including a schedule for corrective action, ensuring that this problem is defined, monitored and corrected (Unresolved Item 82-15-04).

b. Extend the settlement monitoring program to include procedures for structures other than the Reactor Building (Unresolved Item 84-24-01).

ATTACHMENT 2

NUREG-0737, Supplement 1 Schedule

The licensee shall implement the specific items below, in the manner described in letter SNRC-863, dated April 14, 1984, as modified by letter SNRC-1103, dated November 5, 1984, no later than the following dates.

1.	Safety Parameter Display System (SPDS) Final SPDS fully operational and operators trained	Prior to Startup after the first refueling outage 1/
2.	Detailed Control Room Design Review (DCRDR)	
	Submit a Summary Report to the NRC including a proposed schedule for implementation	Prior to startup following the first refueling outage.
3.	Regulatory Guide 1.97, Revision 2 Implement the requirements of RG 1.97 or provide justification for deviations	2/
4.	Upgrade Emergency Operating Procedures (EOP)	
	a. Submit a Procedures Generation Package to the NRC	Prior to the start of the first refueling outage.
	b. Implement the upgraded EOP's	Prior to startup after the first refueling outage.

1/ Installation of an interim SPDS has been completed.

2/ The licensee has reported that it is in compliance with all requirements except those for which it or the BWR Owners Group has filed an exception. The licensee's proposal is under review by the staff, and the licensee shall be required to implement any additional modifications which arise from that review on a schedule to be agreed upon after the staff review has been completed.

ATTACHMENT 3

Operating Staff Experience Requirements (Section 13, SSER8)

The licensee shall have a licensed senior operator on each shift who has had at least six months of hot operating experience on a same type plant, including at least six weeks at power levels greater than 20% of full power, and who has had start-up and shutdown experience. For those shifts where such an individual is not available on the plant staff, an advisor shall be provided who has had at least four years of power plant experience, including two years of nuclear plant experience, and who has had at least one year of experience on shift as a licensed senior operator at a similar type facility. Use of advisors who were licensed only at the RO level will be evaluated on case-by-case basis. Advisors shall be trained on plant procedures, technical specifications and plant systems, and shall be examined on these topics at a level sufficient to assure familiarity with the plant. For each shift, the remainder of the shift crew shall be trained in the role of advisors. The training of the advisors and remainder of the shift crew shall be completed prior to exceeding five precent of rated power. Prior to achieving initial criticality the licensee shall certify to the NRC staff the names of the advisors who have been examined and have been determined to be competent to provide advice to the operating shifts. These advisors shall be retained until the experience levels identified in the first sentence above have been achieved. The NRC staff shall be notified at least 30 days prior to the date the licensee proposes to release the advisors from further services.

ATTACHMENT 4

(1) The automatic transfer capability of the two normal supply breakers (415 and 424, 435 and 444, and 445 and 464) to each of the 4160V emergency busses (101, 102, and 103 respectively) shall be removed. (Section 8.5, SSER5, SSER6)

(2) Circuits associated with the four mobile emergency diesel generators must be separated from the reserve station service transformer (RSST) and the normal station service transformer (NSST) by either 50 feet or an adequate fire barrier (Section 8.5, SSER5, SSER6)

(3) The operation and maintenance of the four mobile emergency diesel generators shall be subject to the implementation of a quality assurance program for them which is commensurate with their importance to safety for operation of the plant at up to 5% of rated power. This program shall include all pertinent and past history, such as inspection reports, mill certifications, manufacturer certification, and maintenance history, as available. Future documention shall satisfy all appropriate requirements of Appendix B to 10 CFR Part 50, and shall be maintained onsite (Section 8.5, SSER5 SSER6).

(4) The licensee shall have in effect and maintain a procedure to re-establish an alternate ac power source from either the mobile emergency diesel generators or the 20-MW gas turbine generator in the event of a design basis event fire in the non-safety switchgear room. Alternatively, the licensee may demonstrate that the circuits from the alternate ac power supplies are protected in accordance with the requirements of Appendix R to 10 CFR 50. (Section 8.5, SSER5, SSER6)

(5) The following items must be completed prior to fuel load:

(a) To enhance visibility of the NSST disconnects during station blackout conditions at night or during adverse weather conditions, emergency lighting shall be installed at the NSST to illuminate the disconnects.

(b) To prevent possible personnel injury and the resulting time delay on a transit from the control room to the emergency switchgear toom, the portion of the I-beam that protrudes into the stairwell leading from behind the control room back panels to the emergency switchgear room shall be removed or padded.

(c) To enable the operators to readily and accurately access the undervoltage bus program fuses in the emergency switchgear toom, the covers for these cabinets shall be clearly labeled as containing the undervoltage bus program fuses. In addition, the

fuse block for the undervoltage bus program fuses shall be clearly identified within the cabinet. These labels shall be of sufficient size and contrast to allow rapid recognition of the proper cabinet and fuse block under station blackout conditions.

(d) To provide additional assurance that all operators are familiar and proficient with the equipment and procedures to be used, each operating shift shall satisfactorily perform TP 85.84042.3, "Supplemental Diesel Generator-EMD-(GM); Electrical Functional Test Procedure."

(e) To reduce the possibility of error while implementing the procedures, the following modifications to the listed procedures are necessary.

a. TP 29.015.03

1) A line, to be used as a placekeeping aid, shall be placed next to each action step in Section 4.0

2) Step 4.1 - The list of breakers shall be expanded to include 1R22* ACB-102-1.

3) Step 4.3 - All 4 KV loads that need to be in pull-to-lock (PTL), shall be listed.

4) Step 4.4 - As currently worded, the followup action to this step will cause Step 4.5 to be executed regardless of the condition of OCB 1350 and 1360. Step 4.4 shall be separated into the two discrete actions being performed The procedure shall also specify which action step is to follow successful interaction with the system operator to open OCB 1350 and 1360.

b. SP 29.015.02

1) This procedure shall include or reference the actions that are to be taken to restore power to the emergency bases using the on-site 20 MW gas turbine. This shall include a direct reference to the on-site 20 MW gas turbine, to meet the same intent as the reference to the Holtsville gas turbines in Step 3.4.

2) At the appropriate step in this procedure, a reference shall be made to TP 29.015.03.

(6) The licensee shall initiate steps promptly to place the plant in a cold shutdown condition in the event of any of the following during Phases II, III and IV of the low-power testing program, thus further minimizing the probability that a loss of the normal offsite transmission system will occur and adversely affect operation of the plant from a safety standpoint:

(a) a "hurricane warning" for the Shoreham area issued by the National Weather Service;

(b) a "tornado watch" or a "severe thunderstorm watch" for the Shoreham area issued by the National Weather Service;

(c) a "winter storm watch" for the Shoreham area issued by the National Weather Service, including ice storms;

(d) a coastal flood warning for the Shoreham area issued by the National Weather Service predicting that a high tide greater than five feet above normal high water will occur within 24 hours;

(e) an indication of seismic activity of .01g on the Shoreham seismic monitors;

(f) the outage of two of the four LILCO interconnections to The New York Power Pool and The New England Power Exchange (except short outages of less than eight hours of a second inter-tie required for inspection, testing or minor maintenance where the inter-tie could be restored to service if needed); and

(g) a low electrical frequency condition on the LILCO transmission system which reaches the alarm set point.

ATTACHMENT 5

Changes to the Remote Shutdown Panel (RSP) (Section 7.4.3 SSER 3, SSER4)

As a result of the staff's concerns, the licensee shall provide and/or identify the following additional instrumentation and controls to meet the single-failure criterion prior to startup after the first refueling.

(1) Residual Heat Removal (RHR) system--An RHR A flow indicator will be provided on a local panel.

(2) Reactor Building Service Water (RBSW) system--Provide RBSW train A flow indication at a local panel.

(3) Spent fuel pool cooling--Provide pump controls for the A spent fuel pool cooling pump on a local panel.

(4) Miscellaneous local indicators--Provide a Division 2 indicator for Reactor Pressure Vessel (RPV) pressure and Division 1 and 2 indicators for suppression pool temperature.

The following remote shutdown panel instruments, including their sensors, power supplies, displays and associated connections shall meet the quality standards applicable to Quality Assurance Category I equipment prior to startup of the plant following the first refueling outage:

(1) RHR B flow

(2) RPV level

(3) RPV pressure

(4) service water B header pressure

(5) suppression pool temperatures

(6) suppression pool level

(7) Reactor Core Isolation Cooling (RCIC) flow

(8) RCIC turbine speed

(9) SRV N_2 pressure