

LONG ISLAND LIGHTING COMPANY
SHOREHAM NUCLEAR POWER STATION
Docket No. 50-322

APPLICATION FOR AN AMENDMENT TO
FACILITY OPERATING LICENSE NPF-82

I. Introduction

Pursuant to 10 C.F.R. § 50.90, Long Island Lighting Company (LILCO) hereby requests an amendment to Facility Operating License NPF-82 for the Shoreham Nuclear Power Station. This amendment is necessary in order for LILCO to implement the Shoreham Nuclear Power Station Defueled Emergency Preparedness Plan (DEPP). Accordingly, LILCO requests that this amendment be made effective concurrently with NRC approval of the DEPP.

II. Description of Proposed Amendment

LILCO seeks to revise NPF-82 by adding a license condition that suspends the effect of License Conditions 2.C (9) through 2.C (13) during Shoreham's current non-operating and defueled condition. Specifically, the proposed amendment would add on page 6 of NPF-82, immediately following the text of License Condition 2.C (13), a new License Condition 2.C (14) to read as follows:

- (14) The requirements set forth in License Conditions (9) through (13) will not apply if the following conditions exist:
- 1) The reactor is void of all fuel assemblies; and
 - 2) The spent fuel, with a burnup of approximately two effective full power days, is stored in the spent fuel storage pool or other approved storage configuration.

If the NRC approves this amendment, and also grants LILCO's request for an exemption from the requirements of 10 C.F.R. § 50.54(q), LILCO intends to cease all offsite emergency preparedness activities at Shoreham, including no longer maintaining the Shoreham Nuclear Power Station Local Offsite Radiological Emergency Response Plan and disbanding the Local Emergency Response Organization (LERO).

III. Spent Fuel Storage Safety Analysis

In addition to the "no significant hazards consideration" analysis set forth in Section IV below, this license amendment request incorporates by reference the Radiological Safety Analysis for Spent Fuel Storage and Handling, NED 4170024 (Rev. 0) ("Safety Analysis"), which is Attachment 3 to LILCO's submittal. The Safety Analysis, which has been prepared by LILCO's Nuclear Engineering Department, provides an assessment of radiological risks and consequences associated with the storage and handling of Shoreham's low burnup first cycle spent fuel.

IV. Analysis of No Significant Hazards Consideration

Pursuant to 10 C.F.R. § 50.91(a)(1), LILCO has performed a "no significant hazards consideration" analysis, assessing the proposed amendment using the standards set forth in 10 C.F.R. § 50.92(c). Based on this analysis, as presented below, LILCO has determined that the proposed amendment does not involve a significant hazards consideration.

A. The Proposed Amendment Does Not Involve a Significant Increase in the Probability or Consequences of an Accident Previously Evaluated

First, the proposed amendment does not involve a significant increase in either the probability or the consequences of an accident previously evaluated. The probability of a previously evaluated accident will not be increased because the amendment does not affect the function or operation of any system or equipment, but merely permits the cessation of certain offsite emergency preparedness activities. No physical changes will be made to the facility as a result of this proposed amendment, and all applicable Limiting Conditions for Operation, Limiting Safety Systems Settings, and Safety Limits specified in the Technical Specifications will remain unchanged as a result of this proposed amendment. Likewise, the amendment will not degrade the performance of any safety system or increase challenges to any safety system assumed to function in the accident analyses.

Moreover, based on the Safety Analysis, LILCO has determined that, with Shoreham in its non-operating defueled condition, the probability of a previously analyzed accident is significantly reduced. The Safety Analysis reveals that Shoreham's spent fuel is in a low burnup condition, and that the amount of decay heat being generated by the fuel as of June 1989 is negligible -- approximately 550 watts. With the fuel in such a low burnup condition, the Safety Analysis indicates that active systems for pool water makeup are not required and that passive cooling in the fuel pool is sufficient to maintain fuel cladding integrity.

The Safety Analysis also establishes that the consequences of previously evaluated accidents are greatly decreased, given Shoreham's defueled status. The Safety Analysis reviews the spectrum of accidents evaluated in the Shoreham Updated Safety Analysis Report (USAR) and identifies those events that apply to the storage and handling of spent fuel. Two events have been found to be relevant: (1) Fuel Handling Accident (USAR § 15.1.36), and (2) Liquid Radwaste Tank Rupture (USAR § 15.1.32). For the Fuel Handling Accident, the Safety Analysis calculates that the integrated whole body and skin doses are less than .00005% of the 10 C.F.R. Part 100 limits. For the Liquid Radwaste Tank Rupture, the integrated whole body, skin, and maximum organ (lung) doses are less than .0000004% of the 10 C.F.R. Part 100 limits. Given these de minimis doses, it is clear that the cessation of offsite emergency preparedness will not result in any increase in the consequences of a previously evaluated accident.

B. The Proposed Amendment Will Not Create the Possibility of a New or Different Kind of Accident from Any Accident Previously Evaluated

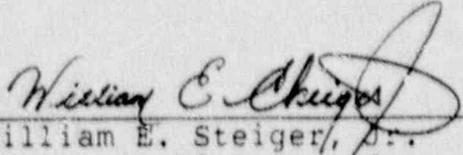
Second, the proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated. Again, the amendment will only remove certain conditions related to emergency preparedness from Shoreham's operating license. The amendment itself does not affect the function or operation of any system or equipment.

C. The Proposed Amendment Does Not Involve a Significant Reduction in a Margin of Safety

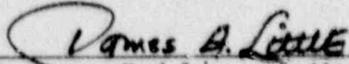
Third, the proposed amendment does not involve a significant reduction in a margin of safety. With Shoreham in its non-operating and defueled condition, the cessation of offsite emergency preparedness activities will not increase the risk of radiological exposure to the offsite general public. As noted above, the Safety Analysis establishes that the two applicable events previously evaluated in the Shoreham USAR have no significant radiological consequences. The Safety Analysis also postulates a "worst case" radiological event, in which the entire gaseous inventory of the entire core is released to the reactor building. For this event the integrated whole body and skin doses are less than .031% of the dose limits established by 10 C.F.R. Part 100.

Long Island Lighting Company

By


William E. Steiger, Jr.
Assistant Vice President
Nuclear Operations

Subscribed and sworn to me this 15th day of December 1989.


Notary Public of New York

My Commission Expires:

JAMES A. LITTLE
NOTARY PUBLIC, State of New York
No. 4886267, Suffolk County
Term Expires May 18, 1991