

MAR 13 1986

Docket No. 50-322

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THROUGH: Walter R. Butler, Director
BWR Project Directorate No. 4, DBL

FROM: Ralph Caruso, Sr. Project Manager
BWR Project Directorate No. 4, DBL

SUBJECT: DRAFT NRR INPUT FOR THE SHOREHAM SALP FOR THE PERIOD
MARCH 1, 1985 TO FEBRUARY 28, 1986

Enclosed is the draft NRR SALP report for the Long Island Lighting Company's Shoreham Nuclear Power Station for the period from March 1, 1985 to February 28, 1986. Because of the extremely limited number of licensing actions evaluated by the technical staff, the report is based mostly on assessments by the Project Manager. The proposed overall performance rating in the functional area of Licensing Activities is Category 2. In addition, please find the following:

- Appendix A: SALP EVALUATION MATRIX
- Appendix B: NRR SUPPORTING DATA AND SUMMARY
- Appendix C: SUMMARY OF PREVIOUS NRC SALP EVALUATIONS
- Appendix D: SUMMARY OF PREVIOUS NRR SALP EVALUATION
OF LICENSING ACTIVITIES

Please review the draft evaluation and provide any comments you feel appropriate. All comments received within 7 days of the date of this memorandum will be considered in the final report.

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G PDR

Original Signed by

Ralph Caruso, Sr. Project Manager
BWR Project Directorate No. 4, DBL

Enclosures:

1. Draft NRR SALP Report
2. Appendices A, B, C, and D

cc: H. Denton
D. Eisenhut
R. Bernero
R. Houston

PD#4XPM
RCaruso:lb
03/12/86

PD#4/D
WButler
03/12/86

WB



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D. C. 20555

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FACILITY: Shoreham Nuclear Power Station
LICENSEE: Long Island Lighting Company
EVALUATION PERIOD: March 1, 1985 to February 28, 1986
PROJECT MANAGER: Ralph Caruso

I. INTRODUCTION

This report presents the results of the performance assessment for the Long Island Lighting Company (LILCo), the licensee for the Shoreham Nuclear Power Station, in the functional area of Licensing Activities.

The approach used in this evaluation is consistent with the provisions of NRR Office Letter No. 44, NRR Inputs to SALP Process, dated January 3, 1984, which requires that each organization responsible for preparing a Safety Evaluation provide a SALP input upon completion of the evaluation. The staff has applied the SALP evaluation criteria for the performance attributes based on first hand experience with the licensee or with the licensee's submittals.

The individual SALP evaluations for each rated issue were assembled into a matrix (See Appendix A). Those data were then used, with appropriate weighting factors for the importance to safety of the licensing issue, to develop the overall evaluation of the licensee's performance. The assessments for the individual ratings were also tempered with judgment regarding the appropriateness of the rating for the specific licensing issue.

This approach is consistent with NRC Manual Chapter 0516, which specifies that each functional area evaluated will be assigned a performance category based on a composite of a number of attributes.

It should be noted, however, that Shoreham presents an unusual case for this evaluation period. Although a cold criticality license was issued on December 7, 1984, and a 5% license on July 3, 1985, controversy surrounding emergency planning issues has, to date, prevented the issuance of a full power license. Because of this delay after the completion of plant construction, almost all pre-licensing issues have been resolved. Consequently, the staff has not had to perform near the number of technical evaluations during this rating period than might be expected for a plant at this stage in its life. In addition, because the testing program has not progressed beyond the 5% power level, the licensee has had little opportunity to discover the need for changes to the Technical Specifications. As a result, only three license amendment requests have been filed, and they have been generally minor.

This evaluation is therefore significantly influenced by the experience of the Project Manager, who has had the most significant amount of contact with the licensee. This contact encompassed the review of the adequacy of the TDI diesel generators, the preparation of the 5% license, the processing of an exemption from 10 CFR 50.49 (EQ) and the ongoing emergency preparedness issues.

II. SUMMARY OF RESULTS

The licensee has generally continued to perform at an acceptable level in the Licensing Activities area. The licensee continues to respond to staff inquiries in a technically sound fashion, and senior licensee managers continue to exercise firm control over the activities of their contractors, while still maintaining good communications between the licensee's staff and its contractors, and the NRC staff and its contractors. However, we have continued to note the existence of a restraint on the interchange of some types of information. We suspect that this has arisen from the extremely broad litigation concerning this facility which has continued for several years and for which no end appears in sight. The result is a greater delay than should exist in responding formally to staff inquiries, while the submittals are subjected to intense legal and lexical reviews. This "word engineering" has delayed the resolution of several technical issues.

Based on the assessment approach described in the Introduction, the licensee's performance in the functional area of Licensing Activities is rated Category 2.

III. CRITERIA

The seven evaluation criteria as given in NRC Manual Chapter 0516 (Table 1) were used in this assessment. In addition, housekeeping in and around the plant is also discussed. These criteria are as follows:

- A. Management involvement in assuring quality
- B. Approach to resolution of technical issues from a safety standpoint
- C. Responsiveness to NRC initiatives
- D. Enforcement History*
- E. Staffing (including management)
- F. Reporting and analysis of reportable events
- G. Training qualification and effectiveness*
- H. Housekeeping

IV. PERFORMANCE ANALYSIS

The licensee's performance for the Licensing Activities functional area was evaluated for six of the eight criteria listed above. The data base of experience in this rating period for the remaining two criteria (asterisked above) was much smaller than for the other six criteria and therefore, only a summary comment is provided for those criteria.

This assessment is based on the staff's evaluation of the licensee's performance in support of the few licensing actions which had a significant level of activity during the assessment period. They include the ASLB and ASLAB activities regarding the TDI EDGs and offsite emergency preparedness, preparation of one SER supplement, the development of the 5% license, the processing of two license amendments, and operation of the plant in the startup testing program. The following specific licensing actions were completed:

1. Environmental Qualification Exemption
2. TDI EDG Qualified Load Evaluation
3. Backup STA Qualifications
4. Fire Protection
5. Salem ATWS, Item 1.1
6. Solid Waste Process Control Program
7. ADS Accumulator Testing
8. RBSVS Radiation Monitor Redesignation
9. GDC-17 Exemption-Security Aspects
10. 10 CFR 50.44(c)(3)(i)-Inerting Exemption

A. Management Amendment and Control in Assuring Quality

The licensee's management participated directly in several of the major licensing activities during this period, most notably emergency planning, the TDI EDGs, and the GDC-17 exemption. Because these issues were, and in the case of emergency planning still are, on the critical path for licensing, this management involvement made a positive contribution in assuring quality. During the staff's review of the equipment qualification exemption request, the licensee's management was instrumental in providing additional information in a timely fashion. Similarly, the Vice President for Nuclear Operation has personally participated in the emergency planning process, including the performance of the drill on February 13, 1986. By his presence and with his substantial nuclear experience, he made a significant contribution to the success of the exercise.

The technical review of the TGI EDGs has received continuous management involvement and support which has been the principal reason for its success. When the favorable ASLB decision on the TDI EDGs was issued, senior LILCo engineering managers participated personally in the development of the license conditions and technical specifications needed to implement the ASLB decision. Similarly, in the spring of 1985, LILCo management placed the full resources of the company behind the resolution of security concerns associated with the GDC-17 exemption process. Management participation was particularly evident in the investigation of the high rate of human errors experienced in the early months of licensed operation.

In the case of issues which are not on critical path, good management involvement is also evident, although the type of participation we have observed has frequently caused delays (see section C "Responsiveness to NRC Initiatives" below).

Notwithstanding the above, however, we have noted that the "significant hazards" analyses accompanying requests for license amendments have been perfunctory and conclusionary, rather than true analyses. In this regard, the licensee's performance is typical of many others (see Generic Letter 86-30). Future license amendment requests should include sufficient detail for the reviewer to understand the details of the request and the basis for it without resorting to a review of the entire FSAR.

On the basis of these observations a rating of category 2 is assigned for this attribute.

B. Approach to Resolution of Technical Issues from a Safety Standpoint

The licensee's technical response to the resolution of most issues continues to be generally sound. Staff reviews during this rating period have concentrated on the resolution of portions of larger issues left over from the previous rating period. The licensee's management and staff continue to demonstrate a thorough understanding of these issues. Specifically, the licensee's performance regarding the TDI EDGs has been excellent. In the area of fire protection, the licensee's response to the issue of the control of associated circuits for the ADS valves was especially conservative, compared to other licensees. However, the licensee's initial response to human factor concerns related to TDI EDG loading was deficient, and the staff had to prod the licensee to perform a proper task analysis.

On the basis of these observations, a rating of Category 2 is assigned for this attribute.

C. Responsiveness to NRC Initiatives

As was noted in last year's SALP evaluation, LILCo is willing and able to marshal whatever resources are necessary to resolve issues that remain on the critical path for licensing. The two prime examples of this are the TDI EDG effort and the off-site emergency planning organization, which encompasses over 2000 LILCo employees from throughout the company. However, the licensing responsiveness to other initiatives, whether NRC initiated or licensee initiated, is still low. This was evident in the time required to respond to open fire protection issues, the issue of the operability of the HPCI, RCIC, and RWCU isolation valves, and the TDI EDG human factors task analysis.

During the original licensing board hearings in 1983, LILCo committed to provide the staff with the results of its PRA, including the consequence analysis section. The licensee submitted the first two parts of the PRA in 1984, but has not, to date, submitted the consequence analysis section, despite continual verbal reminders from the staff. This has delayed completion of the staff review for over two years.

These delays can be traced to two fundamental causes. First, the atmosphere of litigation continues to surround this project. Every LILCo employee, from the highest levels of management to the lowest operator, works under the impression that he or she may someday have to testify before some court or administrative body. This causes everyone to be especially careful about what is written into formal submittals to the NRC, and how it is written. The concurrence chain for a simple letter to the NRC is extremely long, with separate engineering, legal, licensing, and management reviews. Wordsmithing in these reviews inevitably produces delays. In some cases it has also reduced the usefulness of the resultant letter to the NRC, because of deliberately introduced ambiguities or because informative, but potentially sensitive, data have been deleted.

A second cause appears to be understaffing in the licensee's licensing organization. Three experienced licensing engineers have left that organization in the last year, with a resultant increase in workload for the remaining two engineers. When Shoreham is eventually licensed for full power operations, the

workload of this group will increase dramatically, and without additional assistance, it will quickly become swamped and ineffectual. Licensee management should take aggressive action to correct this situation soon.

In sum, this area has not improved since last year's evaluation, and in fact the trend is negative. However, a rating of Category 2 for this attribute is still appropriate.

D. Enforcement History

During this rating period, the Project Manager observed that several minor Notices of Violation were issued in conjunction with NRC inspection activities. None resulted in the imposition of civil penalties, and the licensee's responses appeared to be acceptable.

Given the low level of plant operations during this period, we do not believe that we have a basis to recommend a rating for this attribute.

E. Staffing

The basis for the assessment of this topic is principally the observations by the Project Manager during this rating period. Only one NRR licensing activity involving staffing (the review of the adequacy of the shift technical advisors) was performed during the period.

The licensee has sufficient licensed personnel to fully staff six operating shifts. This includes providing an additional advisor on each shift, separate from the STA, who has substantial hot operating BWR experience. The operating staff therefore appears to be adequately staffed.

The licensing staff, however, has become overworked, as described in Section C above. Additionally, the delay in licensing the plant has caused a slight decline in the number of engineers and other non-operational professional staff, and has caused difficulties in attracting new staff. This situation was noted in last year's SALP, and continues to exist. To date this has only caused administrative problems rather than safety problems, but it should continue to be watched closely.

Based on these observations, a rating of Category 2 is assigned to this attribute.

F. Reporting and Analysis of Reportable Events

The licensee held a 5% low power operating license for Shoreham for the last 7 months of the report period. The unit was shut down in October after four months of low power operation. During the one year report period, the licensee reported 54 non-security events per 10 CFR 50.72 to the NRC Operation Center. In addition, 16 Licensee Event Reports (LERs), involving mostly Technical Specifications violations, were issued per 10 CFR 50.73. Almost half of the reports involved personnel, procedural or maintenance deficiency, which is worse than the average.

Events at Shoreham appear to have been reported promptly and accurately. The frequency of reportable events during the low power operation is better than average and none of the events was of great significance.

Based on our review of the reported events, we recommend an average-plant rating of 2 for the licensee's performance in frequency, reporting, and analysis of reportable events.

G. Training and Qualification Effectiveness

The basis for the assessment of this topic is principally the observations by the Project Manager. The staff performed only one NRR licensing activity involving training (shift technical advisor adequacy), during the period.

From the one licensing activity which involved training, it appears that the licensee's training and qualification program is excellent. The five backup STAs identified by the licensee have excellent academic credentials and have received extensive training to prepare them for their duties.

However, in February 1986, the Project Manager participated with the Shoreham Resident Inspector in an inspection of the licensee's radiochemistry training records. The inspection was still continuing when this report was being prepared, but several significant deficiencies appeared to exist in the training and qualification documentation for the radiochemists, their foreman, and the radiochemical engineer. The final results of this inspection should be available before the SALP Board convenes. Given these conflicting indications, we do not believe that we have an adequate basis to recommend a rating in this category at this time.

H. Housekeeping

Housekeeping is an area that will be discussed elsewhere in the SALP report (usually in the Fire Protection and Housekeeping section). However, NRR has a continuing interest in this area since good housekeeping practices indicate that the licensee and its employees take pride in the facilities and their jobs. The Project Manager's observations and discussions with NRC Region I Resident Inspectors indicate that the plant is maintained in a very orderly and clean working environment. A rating of Category 1 is warranted for this attribute.

Appendix A - SALP Evaluation Matrix

Review Branch	Licensing Action Tac No.	Management Involvement	Approach to Resolution	Responsiveness	Enforcement History	Reportable Events	Staffing	Training	Overall
RSB/DSI	ADS Accumulator Testing 57252 (G. Thomas)	2	2						2
METB/DSI	Process Control Program (R. Fell)	2	2	1					2
TDI Proj Group	TDI EDGs 56691 (C. Berlinger) (R. Caruso)	1	1	2			1		1
DHFS	Shift Technical Advisors 57891 (M. Schoppman)	1		1			2	1	1
DHFS	Salem ATWS Item 1.1 Past type Review 57801 (D. Shum)	2	2	2					2
CHEB/DE	Fire Protection 56520 (D. Kubicki)	2	2	2					2
DHFS	TDI Loads (J. Buzzy) 56691 (J. Clifford) (R. Eckenrode)	3	3	2					3
DL	EQ Exemption 59923 (R. Caruso)	2	2	2					2

Appendix B - NRR Supporting Data and Summary

1. NRR/Licensee Meetings

April 1-2, 1985 PRA Review at BNL

2. NRR Site Visits

March 11, 1985 - PM visited Resident Inspector and plant staff

March 25, 1985 - PM accompanied ASLB on tour of plant security for GDC-17 exemption hearing

June 7, 1985 - PM and Branch Chief attended SALP meeting at site and toured plant

January 27-31, 1986 - PM visited Resident Inspector and plant staff and attended Region I management meeting with licensee

February 11-13, 1986 - PM participated in E-Plan drill at plant site and off-site.

3. Commission Briefings

October 25, 1985 - Consideration of EQ schedular extension requests

4. Schedular Extensions Granted

a. Equipment Qualification - for ventilation damper actuators and H₂ Recombiners until December 31, 1985 (now moot)

b. Inerting Containment - until 120 EFPD have been expended. See SSER 9. To be included in full power license.

5. Reliefs Granted

None

6. Exemptions Granted (5% License)

a) GDC-2: Seismic Qualification of Radiation Monitors

b) GDC-56: Containment Isolation Valves

c) Appendix J: MSIV leak rate testing

d) GDC-19: Remote Shutdown capability

e) 10 CFR 50.44: Initial Containment inerting (To be included in full power license. Not in 5% license. See SSER 9)

f) 10 CFR 50.49 EQ: (see 4.a above)

7. License Amendments Issued

Three requests for amendment of the 5% license and Technical Specifications were received. One amendment, related to EQ, was issued on December 6, 1985.

8. Emergency Technical Specifications Changes Granted

None

9. Orders Issued

Numerous Orders were issued during this period by the ASLBs, the ASLAB, and the Commission related to the ongoing licensing hearings.

APPENDIX C

SUMMARY OF PREVIOUS NRC SALP EVALUATIONS FOR THE
SHOREHAM NUCLEAR POWER STATION

<u>Functional Area</u>	<u>February 1, 1983 to February 29, 1984</u>	<u>March 1, 1984 to February 28, 1985</u>	<u>Trend****</u>
1. Construction Activities	***	1	Consistent
2. Engineering and Design	1	1	Improving
3. Pre-operational and Startup Testing	2**	1	None
4. Maintenance and Surveillance	1	1	Consistent
5. Plant Operations	*	1	Improving
6. Radiological Controls	1	1	Consistent
7. Fire Protection and Housekeeping	2	2	Improving
8. Emergency Preparedness	2	No Basis	None
9. Security and Safeguards	1	1	Consistent
10. Licensing	2	2	Consistent

*This area not previously evaluated.

**Previous SALP only evaluated the Pre-operational Test Program.

***In the previous SALP, this area was broken down into four separate functional areas.

****Trend during the last quarter (12/84 through 2/85) of assessment period.

APPENDIX D

SUMMARY OF PREVIOUS NRR SALP EVALUATION OF
SHOREHAM NUCLEAR POWER STATION LICENSING ACTIVITIES

	2/01/83 to 2/29/84	3/01/84 to 2/28/85	3/01/84 to 2/28/86 (PROPOSED)
Licensing			
°Management Involvement	2	2	2
°Approach to Resolution of Tech Specs	1	2	2
°Responsiveness	2	2	2
°Enforcement History	2	3	*
°Reportable Events	2	*	2
°Staffing	2	2	2
°Training	*	2	*
°Housekeeping	NA	**	1
°Overall Summary	2	2	2

*This area was not formally assigned a numerical rating due to the small number and scope of issues addressed during the rating period.

**Plant was under construction/pre-operational status for almost all of this period. Based on comments by senior NRC representatives during site visits this would probably have been a category 1 with an improving trend had it been rated separately during that period.