

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

DOCKETED
USNRC

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BEFORE THE ATOMIC SAFETY AND LICENSING BOARD



In the Matter of)
LONG ISLAND LIGHTING COMPANY)
(Shoreham Nuclear Power)
Station, Unit 1))

Docket No. 50-322

SUFFOLK COUNTY SECOND SET OF INTERROGATORIES
TO THE NRC STAFF

Pursuant to 10 C.F.R § 2.720(h)(2)(ii) and 2.740b, the NRC Staff is requested by Suffolk County to answer separately and fully, under oath, each of the interrogatories set forth below, within fourteen (14) days after service hereof.

DEFINITIONS AND INSTRUCTIONS
FOR ANSWERING INTERROGATORIES

The definitions and instructions applicable to these Interrogatories are the same as those set forth in Suffolk County Interrogatories to the NRC Staff, dated March 5, 1982.

Suffolk Co. Contention 11.

1. State the NRC Staff's position with respect to Suffolk County Contention 11 and with respect to such position identify:
 - a. The bases for such position;
 - b. All analyses, correspondence, and other documents, including test results, research, audits, investigations or reports, upon which the NRC Staff

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relies for support of or which concern its position; and

- c. The acceptance criteria (Regulatory Guide, Standard Review Plan, etc.) utilized by the NRC Staff to reach its position with respect to this Contention, and all analyses and other documents concerning whether these criteria have been satisfied by LILCO.

2. What evaluations or analyses have been conducted to determine if mechanical valve failures similar to those experienced in Brunswick Unit Nos. 1 and 2 and Hatch No. 2 MSLIV's, between 1976 and 1981, are possible in Shoreham valves? Describe and identify any evaluations, analyses or other documents which concern the effect of these failures on the adequacy of the Shoreham valves.

3. What techniques are used to detect the separation of valve stem from stem disc or gate? Describe them and identify all documents which concern these techniques.

4. Has the Staff reviewed the Shoreham operating procedures used to detect mechanical failures of passive mechanical valves at Shoreham? If so, describe such review(s) and identify all documents which concern such reviews.

Suffolk Co. Contention 13.

5. State the NRC Staff's position with respect to Suffolk County Contention 13 and with respect to such position identify:

- a. The bases for such position;

- b. All analyses, correspondence, and other documents, including test results, research, audits, investigations or reports, upon which the NRC Staff relies for support of or which concern its position; and
- c. The acceptance criteria (Regulatory Guide, Standard Review Plan, etc.) utilized by the NRC Staff to reach its position with respect to this Contention, and all analyses and other documents concerning whether these criteria have been satisfied by LILCO.

6. Does the NRC Staff intend to maintain a resident inspector at Shoreham for the operational life of the plant? If the answer is affirmative, identify all documents that concern that inspector's responsibilities, duties, qualifications, and inspection plan.

7. Describe the procedures and/or strategy the NRC will use to insure that LILCO will provide an adequate number of qualified QA/QC personnel on the operating staff, both on-shift and off-shift. Identify all documents which concern the NRC's procedures and/or strategy.

8. What does the NRC consider to be an adequate number of qualified QA/QC personnel for off-shifts at Shoreham? Describe the bases for this position. Would this number be affected by any factors such as heavy maintenance situations, refueling outages, etc.? If so, please identify such and the changes in number of personnel required for each circumstance.

Suffolk Co. Contention 14.*

9. State the NRC Staff's position with respect to Suffolk County Contention 14 and with respect to such position identify:
- a. The bases for such position;
 - b. All analyses, correspondence, and other documents, including test results, research, audits, investigations or reports, upon which the NRC Staff relies for support of or which concern its position; and
 - c. The acceptance criteria (Regulatory Guide, Standard Review Plan, etc.) utilized by the NRC Staff to reach its position with respect to this Contention, and all analyses and other documents concerning whether these criteria have been satisfied by LILCO.
10. Please describe the approximate total number of hours of NRC inspections of Shoreham, the number of noncompliances found, the number of violations discovered, and the approximate number of hours spent closing out inspection violations and noncompliances. Identify all documents relied upon to provide the response to this interrogatory.
11. Please provide data concerning the NRC I & E Programs for each of the Browns Ferry, North Anna, Davis Besse, Rancho Seco, Zimmer and LaSalle nuclear stations with respect to the following factors:

* / Certain interrogatories under Contention 14 also relate to Contention 15.

- a. total number of man hours of NRC inspections;
- b. total number of noncompliances found;
- c. total number of violations discovered;
- d. total number of NRC inspectors assigned;
- e. total number of violations found by resident inspectors vs. inspection teams;
- f. total number of noncompliances found by resident inspectors vs. inspection teams; and,
- g. total number of inspection hours provided by resident inspectors vs. inspection teams.

12. Please describe and identify all nonconformance/non-compliance logs or listings (and similar documents) for Shoreham showing the dates on which each nonconformance/noncompliance was entered and cleared for the quality assurance programs of LILCO, Courter, Comstock & Jackson, Dravo Company, General Electric, and Stone & Webster. Please categorize these noncompliances as random or systematic as affecting the quality assurance program. Identify all documents which concern each noncompliance/nonconformance.

13. Describe the qualifications of the I & E Inspectors primarily responsible for inspecting Shoreham. Identify all documents concerning these qualifications.

14. What criteria does the NRC utilize to determine whether I & E Inspectors have the requisite qualifications? Identify all documents concerning these criteria.

15. What is the NRC procedure for insuring that all construction QA violations and noncompliances are closed out and all

corrective actions have occurred satisfactorily prior to operation? Please provide specific examples of actions where corrective actions have been satisfactory closed out and identify all documents concerning the NRC procedure.

16. Does the NRC Staff believe that its I & E Inspection Program has identified all quality deficiencies and root causes of nonconformances at Shoreham to date? If yes, please provide the bases for your position and a list of all quality deficiencies and root causes discovered, including their respective corrective actions. If no, what quality deficiencies and/or root causes does the NRC believe it has not identified, what action is planned to investigate these, and on what basis does NRC justify that it has verified that LILCO's QA Program for Shoreham has been implemented in accordance with the requirements of 10 C.F.R (a)(7) and 10 C.F.R. 50 Appendix B? Identify all documents which concern whether the I & E program has identified all quality deficiencies and root causes of nonconformances to date at Shoreham.

17. Describe and identify all documents which concern the baseline criteria against which the effectiveness of the Shoreham QA Program is quantitatively measured by NRC. If criteria do not exist, please provide the basis for not having such.

18. Are all NRC inspections of Shoreham random, or is there a statistical basis relied upon? If there is a statistical basis, please provide it. If there is not, please provide the basis for not having such.

20. Are comparative measures used in the NRC I & E program as a means of determining improvements in, or the effectiveness of, corrective actions at Shoreham? If not, what are the means used to determine that corrective actions are effective. Identify all documents which concern measures used to determine corrective action effectiveness.

Suffolk Co. Contention 15.

21. State the NRC Staff's position with respect to Suffolk County Contention 15 and with respect to such position identify:

- a. The bases for such position;
- b. All analyses, correspondence, and other documents, including test results, research, audits, investigations or reports, upon which the NRC Staff relies for support of or which concern its position; and
- c. The acceptance criteria (Regulatory Guide, Standard Review Plan, etc.) utilized by the NRC Staff to reach its position with respect to this Contention, and all analyses and other documents concerning whether these criteria have been satisfied by LILCO.

Suffolk Co. Contention 18.

22. State the NRC Staff's position with respect to Suffolk County Contention 18, as revised in the County's March 1 Response to the February 8, 1982 Board Order, and with respect to such position identify:

- a. The bases for such position;
- b. All analyses, correspondence, and other documents including test results, research, audits, investigations or reports, upon which the NRC Staff relies for support of or which concern its position; and
- c. The acceptance criteria (Regulatory Guide, Standard Review Plan, etc.) utilized by the NRC Staff to reach its position with respect to this Contention, and all analyses and other documents concerning whether these criteria have been satisfied by LILCO.

Suffolk Co. Contention 19.

23. State the NRC Staff's position with respect to Suffolk County Contention 19 and with respect to such position identify:

- a. The bases for such position;
- b. All analyses, correspondence, and other documents, including test results, research, audits, investigations or reports, upon which the NRC Staff relies for support of or which concern its position; and
- c. The acceptance criteria (Regulatory Guide, Standard Review Plan, etc.) utilized by the NRC Staff to reach its position with respect to this Contention, and all analyses and other documents concerning whether these criteria have been satisfied by LILCO.

Suffolk Co. Contention 21.

24. State the NRC Staff's position with respect to Suffolk County Contention 21, and with respect to such position identify:

- a. The bases for such position;
- b. All analyses, correspondence, and other documents, including test results, research, audits, investigations or reports, upon which the NRC Staff relies for support of or which concern its position; and
- c. The acceptance criteria (Regulatory Guide, Standard Review Plan, etc.) utilized by the NRC Staff to reach its position with respect to this Contention, and all analyses and other documents concerning whether these criteria have been satisfied by LILCO.

25. Describe and identify any Shoreham acceptance criteria different than the acceptance criteria generated by and for the Mark II containment long-term generic program. For each criterion identified, give the justification for its use at Shoreham. Identify all documents which concern the Mark II acceptance criteria utilized at Shoreham.

26. If no different acceptance criteria are identified in response to the preceding interrogatory, is it the Staff's position that all of the Mark II long-term generic program acceptance criteria apply to Shoreham? If the answer is affirmative, does the Shoreham Mark II comply fully with all these acceptance criteria? If not, describe each difference or

non-compliance. Also, if all generic criteria do not apply, describe which acceptance criteria do not apply and give the reason why each is inapplicable.

Suffolk Co. Contention 22

27. State the NRC Staff's position with respect to Suffolk County Contention 22, as revised in the County's March 1 Response to the Board's February 8, 1982 Order, and with respect to such position identify:

- a. The bases for such position;
- b. All analyses, correspondence, and other documents including test results, research, audits, investigations or reports, upon which the NRC Staff relies for support of or which concern its position; and
- c. The acceptance criteria (Regulatory Guide, Standard Review Plan, etc.) utilized by the NRC Staff to reach its position with respect to this Contention, and all analyses and other documents concerning whether these criteria have been satisfied by LILCO.

Suffolk Co. Contention 23.

28. State the NRC Staff's position with respect to Suffolk County Contention 23 and with respect to such position identify:

- a. The bases for such position;
- b. All analyses, correspondence, and other documents, including test results, research, audits, investigations or reports, upon which the NRC

Staff relies for support of or which concern its position; and

- c. The acceptance criteria (Regulatory Guide, Standard Review Plan, etc.) utilized by the NRC Staff to reach its position with respect to this Contention, and all analyses and other documents concerning whether these criteria have been satisfied by LILCO.

29. Has any further NRC evaluation been conducted on the subject of Shoreham containment purge valve operability as discussed in Item II.E.4.2, "Discussion and Conclusions, item (2)" of the Shoreham Supplemental Safety Evaluation Report (NUREG-0420)? If so, what is the current status of the Staff's findings and identify all documents concerning this matter. If not, what is the schedule for addressing this open SSER item?

30. The NRC published a "Proposed Revision Standard Review Plan, PSRP-3.9.6 (Rev. 2)" which contains a "Proposed Appendix A to SRP Section 3.9.6, Leak Testing of Pressure Isolation Valves (Rev. 0)" and a "Value-Impact Statement for Proposed Appendix A to SRP 3.9.6. Leak Testing of Pressure Isolation Valves." With regard to the proposed Appendix A to SRP 3.9.6, has the NRC done any further evaluations and/or recommendations on the subject of leak testing frequency for isolation valves? If so, please document and explain your bases for any subsequent recommendations or conclusions. If not, does the NRC intend to evaluate this matter any further, and if so, at what point in time? If not, please explain your reason(s) for not doing so.

31. Given the following information:

- a. Shoreham FSAR Section II.E.4.3, Rev. 22 - July 1981, "Containment Isolation Dependability" (NRC Position, LILCO Response and Attachment 1);
- b. Shoreham Supplemental Safety Evaluation Report, Item II.E.4.2, "Discussion and Conclusions, item (2)";
- c. Standard Review Plan 6.2.4, Item II.6.f ("sealed closed barriers"); and
- d. Branch Technical Position CSB6-4,

Please state your position (and basis for it) whether the Shoreham primary containment purge system valves have been, or should be categorized as a "sealed closed barrier" per the definition given in SRP 6.2.4. Also, please explain the functional requirements of a "sealed closed barrier" for each of the five operational conditions (1, 2, 3, 4, 5; i.e., power operation, startup, hot shutdown, cold shutdown, and refueling), and document your bases. Identify all documents which concern this matter.

32. Please identify all NRC correspondence concerning the applicability and/or implementation of the NUREG-0803 study results (Generic Safety Evaluation Report Regarding Integrity of BWR Scram System Piping) for:

- a. the Shoreham Nuclear Power Station;
- b. other Operating License candidates.

Suffolk Co. Contention 24.

33. State the NRC Staff's position with respect to Suffolk County Contention 24 and with respect to such position identify:

- a. The bases for such position;
- b. All analyses, correspondence, and other documents, including test results, research, audits, investigations or reports, upon which the NRC Staff relies for support of or which concern its position; and
- c. The acceptance criteria (Regulatory Guide, Standard Review Plan, etc.) utilized by the NRC Staff to reach its position with respect to this Contention, and all analyses and other documents concerning whether these criteria have been satisfied by LILCO.

34. Identify each piping system where Staff believes the Shoreham design is not in full compliance with the NUREG-0313, Revision 1. Please justify each noncompliance and identify all analyses prepared by or on behalf of the Staff which concern compliance with NUREG-0313, Revision 1.

35. Describe the Shoreham system for feedwater control at low flow conditions. Does the Staff believe the Shoreham feedwater design and feedwater flow control system design comply with NUREG-0619? If not, describe each difference and explain whether the Staff believes the differences are justified. Identify all documents concerning differences from NUREG-0619 and the justification for it.

36. What modification, if any, has been made to the Shoreham design to protect the feedwater nozzles from excessive thermal cycling due to fluctuations in feedwater temperature?

Suffolk Co. Contention 25.

37. State the NRC Staff's position with respect to Suffolk County Contention 25 and with respect to such position identify:

- a. The bases for such position;
- b. All analyses, correspondence, and other documents, including test results, research, audits, investigations or reports, upon which the NRC Staff relies for support of or which concern its position; and
- c. The acceptance criteria (Regulatory Guide, Standard Review Plan, etc.) utilized by the NRC Staff to reach its position with respect to this Contention, and all analyses and other documents concerning whether these criteria have been satisfied by LILCO.

Suffolk Co. Contention 26.

38. State the NRC Staff's position with respect to Suffolk County Contention 26 and with respect to such position identify:

- a. The bases for such position;
- b. All analyses, correspondence, and other documents, including test results, research, audits, investigations or reports, upon which the NRC Staff relies for support of or which concern its position; and
- c. The acceptance criteria (Regulatory Guide, Standard Review Plan, etc.) utilized by the NRC Staff to reach its position with respect to this

Contention, and all analyses and other documents concerning whether these criteria have been satisfied by LILCO.

39. Identify all ALARA-related regulatory criteria (including Regulatory Guides) used during the review of the Shoreham plant and separately list those guides that LILCO will be held to regarding ALARA.

Suffolk Co. Contention 27.

40. State the NRC Staff's position with respect to Suffolk County Contention 27 and with respect to such position identify:

- a. The bases for such position;
- b. All analyses, correspondence, and other documents, including test results, research, audits, investigations or reports, upon which the NRC Staff relies for support of or which concern its position; and
- c. The acceptance criteria (Regulatory Guide, Standard Review Plan, etc.) utilized by the NRC Staff to reach its position with respect to this Contention, and all analyses and other documents concerning whether these criteria have been satisfied by LILCO.

Suffolk Co. Contention 28(a)(i).

41. State the NRC Staff's position with respect to Suffolk County Contention 28(a)(i) and with respect to such position identify:

- a. The bases for such position;
- b. All analyses, correspondence, and other documents, including test results, research, audits, investigations or reports, upon which the NRC Staff relies for support of or which concern its position; and
- c. The acceptance criteria (Regulatory Guide, Standard Review Plan, etc.) utilized by the NRC Staff to reach its position with respect to this Contention, and all analyses and other documents concerning whether these criteria have been satisfied by LILCO.

42. Describe the Staff's assessment of the Shoreham resolution of NUREG-0737 Item II.K.3.21 (the automatic restart of core spray and LPCI on low water level with initiating signal present). If the Staff's position on Shoreham's resolution of Item II.K.3.21 is not unanimous, please describe any dissenting opinions and the names of the persons expressing these views. Identify all documents concerning Shoreham's resolution of this item.

43. In the NRC Staff's opinion, is it technically feasible for Shoreham to implement an automatic restart of core spray/LPCI under the conditions described in NUREG-0737 Item II.K.3.21? Please explain the basis for your answer and identify all documents concerning the Staff's opinion.

Suffolk Co. Contention 28(a)(iii).

44. State the NRC Staff's position with respect to Suffolk County Contention 28(a)(iii) and with respect to such position identify:

- a. The bases for such position;
- b. All analyses, correspondence, and other documents, including test results, research, audits, investigations or reports, upon which the NRC Staff relies for support of or which concern its position; and
- c. The acceptance criteria (Regulatory Guide, Standard Review Plan, etc.) utilized by the NRC Staff to reach its position with respect to this Contention, and all analyses and other documents concerning whether these criteria have been satisfied by LILCO.

45. Identify all documents which concern the NRC Staff's assessment of the accuracy of the iodine measurement of stack releases at the Shoreham plant in terms of the measurement of (a) samples and (b) the overall measurement of iodine released as a function of time.

46. Is it the NRC Staff's opinion that the Shoreham iodine measurement equipment provides adequate knowledge of iodine release from the plant release points under worst case accident conditions? Identify all documents which concern this matter.

Suffolk Co. Contention 28(a)(iv)

47. State the NRC Staff's position with respect to Suffolk County Contention 28(a)(iv) and with respect to such position identify:

- a. The bases for such position;
- b. All analyses, correspondence, and other documents, including test results, research, audits, investigations or reports, upon which the NRC Staff relies for support of or which concern its position; and
- c. The acceptance criteria (Regulatory Guide, Standard Review Plan, etc.) utilized by the NRC Staff to reach its position with respect to this Contention, and all analyses and other documents concerning whether these criteria have been satisfied by LILCO.

Suffolk Co. Contention 28(a)(vi).

48. State the NRC Staff's position with respect to Suffolk County Contention 28(a)(vi) and with respect to such position identify:

- a. The bases for such position;
- b. All analyses, correspondence, and other documents, including test results, research, audits, investigations or reports, upon which the NRC Staff relies for support of or which concern its position; and

- c. The acceptance criteria (Regulatory Guide, Standard Review Plan, etc.) utilized by the NRC Staff to reach its position with respect to this Contention, and all analyses and other documents concerning whether these criteria have been satisfied by LILCO.

Suffolk Co. Contention 31.

49. State the NRC Staff's position with respect to Suffolk County Contention 31 and with respect to such position identify:

- a. The bases for such position;
- b. All analyses, correspondence, and other documents, including test results, research, audits, investigations or reports, upon which the NRC Staff relies for support of or which concern its position; and
- c. The acceptance criteria (Regulatory Guide, Standard Review Plan, etc.) utilized by the NRC Staff to reach its position with respect to this Contention, and all analyses and other documents concerning whether these criteria have been satisfied by LILCO.

50. Does the cable design and physical arrangement of the Shoreham cable spreading room comply with IEEE-384-1977? Describe and give details of each case where it does not comply. Explain the NRC's position on and provide the bases for the acceptability of each noncompliance.

51. Does the cable design and physical arrangement of the Shoreham cable spreading room comply with Reg. Guide 1.75, Rev. 2? Describe and give details of each case where it does not comply. Explain the NRC's position on and provide the bases for the acceptability of each noncompliance.

52. Does the physical separation of electrical cables and conduits in the steam tunnel comply with Reg. Guide 1.75, Rev. 2? Describe and give details of each case where the physical separation does not comply. Explain the NRC's position on and provide the bases for the acceptability of each noncompliance.

53. What acceptance criteria were applied to the physical separation of electrical cables in: (a) the cable spreading room; and (b) the steam tunnel at Shoreham? Identify all documents concerning Shoreham's compliance with these criteria.

54. Identify the standards and regulatory guides (including revisions and issue dates) and other documents which were used as guidance in the Staff review of the cable spreading room and steam tunnel at Shoreham.

SOC Contentions.

55. With respect to each SOC Contention as to which a substantive objection has not been interposed, state the NRC Staff's position and with respect to such position identify:

- a. The bases for such position;
- b. All analyses, correspondence, and other documents, including test results, research, audits, investigations or reports, upon which the NRC Staff

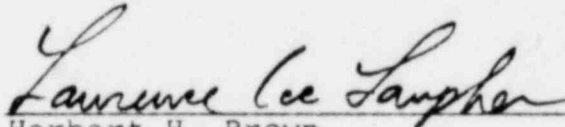
relies for support of or which concern its position; and

- c. The acceptance criteria (Regulatory Guide, Standard Review Plan, etc.) utilized by the NRC Staff to reach its position with respect to this Contention, and all analyses and other documents concerning whether these criteria have been satisfied by LILCO.

Please state your answer separately as to each SOC Contention.

Respectfully submitted,

DAVID J. GILMARTIN
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March 6, 1982