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LILCO, November 14, 1984

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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Before the Atomic Safety and Licensing Board

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

LILCO'S REPORT ON REMAND ISSUES PURSUANT
TO LICENSING BOARD'S NOVEMBER 5, 1984 ORDER

On October 31, 1984, the Appeal Board issued its Decision on the appeals from this Board's Partial Initial Decision (LBP-83-57, 18 NRC 445 (1983)) in this case (hereinafter "LBP-83-57" or "PID"). Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), ALAB-788, ___ NRC ___ (October 31, 1984) (hereinafter "ALAB-788").^{1/} The Appeal Board summarized its decision as follows:

We turn now to a resolution of the issues on appeal. Like the Licensing Board, we decide those issues essentially in the applicant's favor. We do, however, remand three relatively minor matters to the Board: (1) the question whether the plant may be operated pending resolution of Unresolved Safety Issue A-47 as discussed in Section II(D); (2) resolution of certain issues associated with housekeeping, as discussed in Section III, and (3) the issue of

^{1/} All citations to ALAB-788 will be to the slip opinion.

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the environmental qualification of electrical equipment as discussed in Section IV(B).

ALAB-788 at 6.

On November 2, this Board issued a bench Order and on November 5 a confirmatory Order providing an opportunity for affected parties to provide by November 14 joint, or coordinated, reports on (1) the status of the three issues remanded by the Appeal Board in ALAB-788, (2) any further procedural and substantive actions deemed necessary to be accomplished by the parties among themselves or before the Board, and (3) the effect of the three issues on issuance of a low power license.

The affected parties (LILCO, NRC Staff, Suffolk County) have conferred by telephone and have exchanged views on each of the three questions as to each of the three matters remanded by the Appeal Board. This report, which is submitted on behalf of LILCO, addresses each of these matters. LILCO understands that the NRC Staff supports its view on each of them. LILCO also understands that Suffolk County agrees that the housekeeping issue has been satisfactorily resolved but that it is not prepared at this time to take a position on the environmental qualification or Unresolved Safety Issue A-47 matters.

A. HOUSEKEEPING

1. Current Status

As the Appeal Board noted, ALAB-788 at 73-74, LILCO committed to undertake a range of actions to resolve various long-standing, construction-related housekeeping problems addressed by the Staff in Confirmatory Action Letter 83-01. At the time of issuance of the PID, the record reflected preliminary indications that improvements were being implemented by LILCO pursuant to those commitments. ALAB-788 at 74 n.245. On the strength of these indications and the Staff's concurrence that none of these housekeeping matters had safety implications, this Licensing Board concluded that housekeeping matters had been adequately resolved. See ALAB-788 at 74.

On appeal by Suffolk County, however, the Appeal Board concluded that in view of the long-standing nature of housekeeping deficiencies at Shoreham, the Licensing Board should have retained jurisdiction "to await LILCO's further actions to ensure that housekeeping problems no longer existed," rather than concluding the issue "on the strength of an assumption to that effect." Id. at 75. Accordingly, the Appeal Board remanded the matter to this Board, requiring (1) the Staff "to certify to the Board that LILCO has met its commitments and is maintaining on appropriate level of cleanliness," and (2) the Licensing Board to "review the Staff's certification to determine whether compliance has been achieved." Id. ac 75-76.

The Staff has certified, in an "Affidavit of Edward G. Greenman in Response to ALAB-788," dated November 7, 1984 (Attachment 1 hereto):

1. that LILCO has made, and has implemented, substantial commitments with respect to housekeeping in response to and consistent with CAL-83-01 (compare ALAB-788 at 73-74 with Greenman Affidavit at ¶¶ 6-10);
2. that LILCO's implementation of these commitments has been repeatedly monitored and documented by resident inspectors and others, throughout essentially the entire plant, Greenman Affidavit at ¶¶ 7-10, and that LILCO's actions marked "the turning point in housekeeping conditions and practices at Shoreham" and have led to "a steady improvement in housekeeping and cleanliness" at Shoreham, id. at ¶¶ 7-8; and
3. that the current housekeeping practices now provide acceptable levels of cleanliness at Shoreham, id. at ¶ 10.

2. Further Actions Required By the Board or Parties

The Appeal Board's Decision required certification by the Staff as to two matters: LILCO's fulfillment of its commitments in response to CAL-83-01 and the current status of housekeeping at Shoreham. That certification has been given in the attached Affidavit of Edward G. Greenman. No further action by the parties is required.

The only further action contemplated for the Board by ALAB-788 is to determine whether Mr. Greenman's Affidavit adequately treats the two matters required by the Appeal Board to be certified, and, if so, to dismiss the issue on the basis of that

Affidavit. LILCO submits that the Affidavit is adequate to support such dismissal without further ado, and that the Board should do so.

3. Effect on Issuance of Low Power License

The housekeeping issue, once dismissed, would have no effect on the issuance of a low power license for which Shoreham was otherwise eligible.^{2/}

B. Environmental Qualification

1. Current Status

The Commission's environmental qualification regulation contains a provision requiring qualification of nonsafety-related electrical equipment whose failure under postulated environmental conditions could prevent successful accomplishment of specified safety functions by safety-related equipment. 10 CFR § 50.49(b)(2). At the time of the trial of this issue in late January 1983, this regulation had been issued but had not yet become effective, and thus neither LILCO's assessment of compliance with it nor the Staff's review had been definitively completed.

^{2/} The housekeeping matters before this Board do not have any safety significance. Even if the Board were to consider further proceedings of any sort to be necessary with respect to them, the pendency of any such proceedings should not impede issuance of a low power license.

LBP-83-57, 18 NRC at 538. At trial, LILCO witnesses stated that the design philosophy of Shoreham was such that all equipment whose failure could prevent successful accomplishment of safety functions had either been classified as safety-related (and therefore had been environmentally qualified) or had been sufficiently isolated from safety-related equipment to prevent such failure. LBP-83-57, 18 NRC at 538 and unpublished Finding of Fact I-14.

The Staff testified that, for newer plants such as Shoreham, equipment which might otherwise be subject to § 50.49(b)(2) was typically classified as safety-related (or 1E), and agreed with LILCO that at Shoreham the class of items of equipment affected by § 50.49(b)(2) would be very small or nonexistent. LBP-83-5, 18 NRC at 538-39 and unpublished Finding of Fact I-15. The Staff also stated that it would require LILCO to submit a further listing of any equipment to be qualified under § 50.49(b)(2). LBP-83-57, 18 NRC at 538 and unpublished Finding of Fact I-13.

On these bases, and in the absence of persuasive arguments to the contrary, this Board concluded that the impact of § 50.49(b)(2) would be "small or nonexistent," and found the environmental qualification program at Shoreham to be adequate, subject to a requirement that any items of equipment found to be within the reach of § 50.49(b)(2) either be qualified or be justified for interim operation under § 50.49(i) prior to fuel load. LBP-83-57, 18 NRC at 544. This Board also found that the

deficiencies in the environmental qualification review process were sufficiently minor that they could be left to the Staff for further administration and that there was no need for further litigation of the scope of § 50.49(b)(2). Id.

The Appeal Board affirmed this Board's general finding that LILCO's approach to qualification of electrical equipment -- classifying it as safety-related and qualifying it accordingly, or isolating it -- was satisfactory. ALAB-788 at 100-101. The Appeal Board also ratified this Board's finding that there would be "little or no" equipment within § 50.49(b)(2) at Shoreham. Id. at 103-04. The Appeal Board also approvingly reviewed this Board's delegation of further resolution of § 50.49(b)(2) matters to the Staff, as follows:

As we read the Board's decision, the staff is being asked simply to confirm that LILCO has either upgraded or properly isolated nonsafety-related equipment so that no nonsafety-related equipment falls within the § 50.49(b)(2) category. In our judgment, such confirmation does not constitute an improper delegation of adversary issues from the Board to the staff.

ALAB-788, slip op. at 104. Thus, if LILCO's post-hearing review and notice thereof to the Staff concluded that there were no items of equipment at Shoreham requiring qualification under § 50.47(b)(2), then closing out of that matter could properly be left to the Staff and would not require any further proceedings before this Board.

However, the Appeal Board continued, if -- but only if -- LILCO's confirmation program concluded that there were items of equipment requiring qualification under § 50.49(b)(2), and LILCO chose to justify interim operation before environmental qualification, then "[i]n such circumstances the County would be entitled to address this matter." Id. This last respect was the only one in which the Appeal Board's approach or conclusions departed from those of this Board.

The Appeal Board then observed that the current factual record was inconclusive on this last issue. It noted that as of August 1984, the Staff had stated that the issue of qualification under § 50.49(b)(2) "has been resolved by LILCO to the satisfaction of the Staff," ALAB-788 at 105.3/ However, the Staff had not stated that the basis for its resolution -- i.e., whether the Staff had concluded that no equipment requiring qualification under § 50.49(b)(2) existed, or whether the Staff had concluded that such equipment existed but that LILCO was making satisfactory progress toward qualifying it and/or justifying prequalification interim operation. Id. The Appeal Board thus required the Staff "to advise the Licensing Board . . . whether any equipment falls

3/ Memorandum from A. Schwencer, Chief, Licensing Branch #2, to Edwin Reis, Assistant Chief Hearing Counsel, July 30, 1984, page 2 ¶ 6, covered by letter from Bernard M. Bordenick to Attached Service List, Docket No. 50-322-OL-1, August 7, 1984 (collectively, Attachment 2 hereto).

into the § 50.49(b)(2) category and, if so, the basis for the Staff's approval." Id. (emphasis added). This Board was then enjoined to "review the Staff's submission and take such further action as it deems necessary." Id.

Since the trial of environmental-qualification issues, LILCO has performed the further review required of it by the Staff to confirm whether any equipment at Shoreham should be qualified pursuant to § 50.49(b)(2). That review tested the design philosophy of Shoreham through a number of systems interactions studies,^{4/} and through Shoreham's compliance with stringent electrical separation criteria.^{5/} This review confirmed the goal of the Shoreham electrical isolation design philosophy, namely, to assure that nonsafety-related electrical equipment at Shoreham cannot fail in such a way as to prevent the accomplishment of required

^{4/} Various of these studies had been performed prior to the hearing itself and had been referenced there, either in questioning on environmental qualification or in the litigation of Contention 7B. See Tr. 19,651-54 (Kascsak). Two additional studies, a Control Systems Failure Study and a High Energy Line Break/Control Systems Failure Analysis, were completed after the hearing, and were considered by the Staff to have resolved those issues in September 1983 in SSER 4, §§ 7.7.1 and 7.7.2. (See Attachment 10). Each of these documents was served on the Licensing Board and all parties at the time it was issued. See also pages 14-15 below.

^{5/} LILCO committed to meet Regulatory Guide 1.75, Revision 1, "Physical Independence of Electric Systems," and IEEE Std. 384-1975. The Staff felt that compliance with Reg. Guide 1.75 would largely account, by itself, for the absence of equipment in the § 50.49(b)(2) category. Unpublished Finding of Fact I-16.

safety functions, and thus that no equipment subject to § 50.49(b)(2) exists at Shoreham. LILCO reported this post-hearing confirmation to the Staff in SNRC-911, dated June 24, 1983 (Attachment 3 hereto), with copies simultaneously to this Board, to Suffolk County, and to the other parties.

The Staff initially indicated its concurrence in LILCO's conclusion, as the Appeal Board noted, in a July 30, 1984 memorandum from A. Schwencer to Edwin Reis (Attachment 2 hereto) resolving various of the license conditions attached to this Board's PID. However, that concurrence merely noted that the matter had been "resolved by the Applicant to the satisfaction of the NRC Staff," and that the matter would be closed out in forthcoming SSER 7. Then in SSER 7 (September 1984), ¶ 3.11.3, ("Conformance with 10 CFR 50.49"), the Staff referred to LILCO's follow-up review of the applicability of § 50.49(b)(2).^{6/} In subparagraph 3.11.3.1, the Staff again observed that LILCO "has indicated that no Shoreham equipment is in this [§ 50.49(b)(2)] category," and concluded that the Staff's review of this area "has been completed and all issues have been satisfactorily resolved." SSER 7 at page 3-8.^{7/} See

^{6/} The SSER reference is to SNRC-911, characterized as LILCO's "letter dated June 24," 1983. The other letters referred to in ¶ 3.11.3, dated August 3 (SNRC-945), August 15 (SNRC-952) and September 9, 1983 (SNRC-961), deal with a separate matter -- the scope of design basis events covered by LILCO's EQ program.

^{7/} In neither of these concurrences did the Staff state specifically its conclusion as to whether any § 50.49(b)(2) equip-

(footnote continued)

Attachment 4.

As noted above, the Appeal Board indicated in ALAB-788 that the potential future course of this matter would depend on the basis of the Staff's final resolution: whether or not equipment requiring qualification under § 50.49(b)(2) had been determined to exist at Shoreham and, if so, was being justified for interim operation (rather than being finally qualified) prior to fuel load. The Staff has responded to the Appeal Board's direction with an Affidavit from Robert G. LaGrange, Section Leader in the Environmental Qualifications Branch of the NRC Staff. (Attachment 5). Mr. LaGrange's Affidavit, at ¶ 3, states specifically that the Staff's review was sufficient to enable it to conclude that no equipment at Shoreham falls within the category described by § 50.49(b)(2), and that this conclusion is the basis for the Staff's resolution set forth in SSER 7, paragraph 3.11 and specifically subparagraph 3.11.3.1.

(footnote continued)

ment existed at Shoreham, or whether, if so, it had either been adequately qualified or interim-justified. However, until the Appeal Board issued ALAB-788 the Staff's reasoning would not have made any difference since this Board's decision did not distinguish among various bases for the Staff's conclusions as to future disposition of this issue.

2. Further Actions Required by the Board or Parties

The Appeal Board in ALAB-788 required the Staff to advise this Board as to the basis for resolution of § 50.49(b)(2) matters at Shoreham: whether or not any equipment requiring qualification or justification for interim operation under § 50.49(b)(2) exists at Shoreham. The Appeal Board agreed with this Board that this threshold determination was appropriately a Staff function not requiring further Board attention. If, and only if, the Staff's advice to the Board revealed the existence of such equipment, for which LILCO was attempting to obtain justification for interim operation, did the Appeal Board contemplate further proceedings. ALAB-788 at 104. Thus a statement by the Staff that no such equipment exists at Shoreham enables this Board to dismiss this issue without further ado. The Staff has so stated, see the Affidavit of Robert G. LaGrange, ¶ 3. This Board should dismiss this issue.

3. Effect on Issuance of Low Power License

Under the Appeal Board's decision, this Board should dismiss the § 50.49(b)(2) matter promptly on the basis of Mr. LaGrange's Affidavit. Thus, as with the housekeeping matter, there should be no further proceedings on this issue and no effect on the issuance of a low power license.^{8/}

^{8/} Also as with housekeeping, neither this Board nor the Appeal Board found any issues of potential safety significance

C. Unresolved Safety Issue A-47

1. Current Status

Unresolved Safety Issue (USI) A-47 concerns the potential for control system failures or malfunctions interfering with the use of safety equipment in the event of an accident or transient. ALAB-788 at 55. This unresolved safety issue was raised in the Shoreham case as part of a broader systems interaction contention. See LBP-83-57, 18 NRC at 552. Although no specific control system interaction evaluation had been performed for Shoreham at the time testimony was presented, LILCO had completed extensive studies of systems interaction in general. ALAB-788 at 56. The evidence presented to the Licensing Board demonstrated that control systems interactions had been considered in the design of Shoreham, see, e.g., LBP-83-57, unpublished Findings of Fact J-46 to -53, J-86 to -89; that the NRC Staff believed the consequences of any such interactions were bounded by the design basis accident analysis, unpublished Findings of Fact J-212, -216; and that the NRC Staff would require two additional studies^{9/} to confirm that control

(footnote continued)

associated with final resolution of the § 50.49(b)(2) matters. Thus even if this Board were to conclude that further proceedings were necessary, they should not affect issuance of a low power license.

^{9/} The NRC asked LILCO to assess (1) the effect of power supply, sensor and sensor impulse line failures on several control

(footnote continued)

systems interactions were not a problem for Shoreham, 18 NRC at 552. This Licensing Board concluded that there was an adequate basis for resolving A-47 for Shoreham. 18 NRC at 555.

On appeal, Suffolk County argued that the results of the two confirmatory studies must be made part of the adjudicatory record. The Appeal Board agreed and remanded the issue to the Licensing Board to include the results of the studies in the record. ALAB-788 at 57-59.

Both of the studies required by the Staff have been completed by LILCO and have been reviewed and approved by the Staff. The results of the control system power supply study were originally submitted to the NRC on August 27, 1982 (SNRC-761) (Attachment 6). The NRC Staff reviewed this submittal and, by letter dated November 24, 1982 (Attachment 7), requested additional information. This additional information was submitted by LILCO on April 22, 1983 (SNRC-872) (Attachment 8) and June 20, 1983 (SNRC-905) (Attachment 9). The NRC Staff reviewed this additional information and found that it completely resolved the control system issue. SSER 4, § 7.7.2 (September 1983) (Attachment 10).

(footnote continued)

systems (control system study) and (2) the effect of high energy line breaks on control systems (high energy line break or HELB study). ALAB-788 at 57 n.197.

With respect to high energy line breaks, LILCO submitted a study analyzing the effects of such breaks on control systems on November 8, 1982 (SNRC-786) (Attachment 11). By letter dated January 24, 1983 (Attachment 12) the Staff requested additional information, which LILCO submitted on May 11, 1983 (SNRC-887) (Attachment 13). Following review of this information, the Staff found the high energy line break issue resolved. SSER 4, § 7.7.1 (September 1983) (Attachment 10).

The Licensing Board and all parties, including Suffolk County, were provided with copies of each of the above referenced documents when they were issued.

The NRC Staff has confirmed the resolution of USI A-47 for Shoreham in affidavits executed in response to ALAB-788 by Andrew J. Szukiewicz and Jerry L. Mauck, Attachments 14 and 15. Mr. Szukiewicz, the Task Manager for USI A-47 within the Generic Issues Branch, reports that the NRC Staff did require LILCO to perform a high energy line break study and a control system study, Szukiewicz Affidavit at ¶¶ 5-7, and that on the basis of satisfactory completion of these studies, Shoreham can operate at any power level consistent with protection of the health and safety of the public, notwithstanding the generic pendency of USI A-47. Szukiewicz Affidavit at ¶ 8.

Mr. Mauck was the Staff reviewer of the HELB and control systems studies and prepared the Staff's resolution of the concerns

addressed by those studies in SSER 4 (September 1983), ¶¶ 7.7.1, 7.7.2 and 7.5 (Attachment 10). Mauck Affidavit, ¶ 2. Mr. Mauck's Affidavit summarizes these studies, confirms that the Staff's evaluation of them in SSER 4 is true and correct, and states that these studies provide an acceptable means to resolve the Staff concerns addressed by them. Id. ¶¶ 2-4. Mr. Mauck also states that all documents relied on in his review are set forth in SSER 4. Id. ¶ 2.

2. Further Actions Required by the Board or Parties

Based on these Staff affidavits, LILCO submits that the Board can conclude that the generic pendency of USI A-47 should have no effect on the issuance of a license to Shoreham. Consistent with the Appeal Board's instructions, this Board should include the pertinent information in the Shoreham record and close the issue. Unlike the other remanded matters, however, the Appeal Board gave the County the opportunity to test the basis for any conclusions concerning the two studies in question. ALAB-788 at 59. Consequently, this Board must determine whether the County will seek to test the results of the two studies and, if so, the permissible nature and scope of any such inquiry.

From telephone conferences among the parties it is LILCO's understanding that Suffolk County is not presently prepared to state whether it will seek to challenge the HELB study and the

control systems study. Before engaging the procedures to be used in conducting any future proceedings, the Board must decide whether any such proceedings are appropriate.

The fact that the Appeal Board made the results of these studies available for litigation does not mean that relevant intervening circumstances should be ignored. Such circumstances, not revealed by the Appeal Board's decision, nor apparently known to it, include the following:

1. The fact that new studies were performed by LILCO following close of the record before the Licensing Board;
2. The fact that these studies were reviewed and accepted by the Staff in SSER 4, published in September 1983, more than a year ago;
3. The fact that these studies and the Staff's review of them were provided at the time of their issuance to all parties;
4. The fact that questioning relative to the intended scope and methodology of these studies took place when they were being planned (see footnote 10 below);
5. The fact that none of the parties having access to these studies has ever sought either to reopen the record on USI A-47 or to have a new contention admitted on their basis; and
6. The fact that the Staff reviewer, Mr. Mauck, has stated in his Affidavit that his conclusion, and the Staff's position, on USI A-47 has not changed since issuance of SSER 4, and that the documents relied on in his current review are all set forth in the pertinent parts of SSER 4.

In short, this matter has been allowed to lie fallow for over a year despite further submissions by LILCO, its closure by the Staff, and the availability of new material to test the basis for

that closure. It is thus not the same as a remanded issue where the facts have not changed during the pendency of the appeal and the parties thus have no impetus or obligation to protect their interests in the interim.

Given the material developments since the record on this issue closed before this Board two years ago, any party wishing to litigate the resolution of USI A-47 further should be required to meet threshold tests. The Board should require any such party to state promptly the precise aspects of the studies it seeks to challenge, the basis for any allegations of inadequacy, and the reasons why it did not move to reopen the record when the results of the study were first received.^{10/} Once the Board has this information, it can then rule on the appropriate scope of a hearing, if any.^{11/}

^{10/} Not only is this procedure appropriate in light of the failure of any party to raise any safety concerns in a timely manner, it is also important to limit the inquiry to the results of the analysis. It would be improper to permit inquiry into the scope or methodology used since information concerning these aspects of the studies was presented on the record and was the subject of cross-examination. See Burns, *et al.*, ff. Tr. 4346, at 59-60; Tr. 5129-31 (Dawe); Tr. 5144-47 (Dawe, Robare)).

^{11/} LILCO has not proposed a schedule for further proceedings. Any schedule must necessarily depend upon (1) the desire of any eligible party to pursue litigation, (2) the Board's conclusions with respect to the permissibility and scope of any hearings and (3) the Board's views on whether licensing must await their completion.

In view of the advanced stage of this proceeding, expedition in reaching a decision on further proceedings is warranted. It is worth noting that counsel for Suffolk County informed counsel for LILCO and the NRC Staff on November 13 by telephone that the County was as yet unable to determine whether it wished to pursue litigation of USI A-47 before obtaining and reviewing further documents. The Appeal Board's decision was issued two weeks ago, on October 31; this Board put the parties on notice on November 2 (Tr. 25,682-84) that it would expect reports from the parties on November 14; and in a call on November 9, counsel for the Staff and LILCO both offered to make existing documents relating to this or other issues available to the County on request (none was received). Under these circumstances, indecision weighs against the party who would revive litigation of this issue.

3. Remand Issues Do Not
Preclude Issuance of a Low Power License

As already noted, there is ample basis for the Board to find that the pendency of USI A-47 generically does not stand as an obstacle to operation of Shoreham on the merits. Even if the Licensing Board finds that further proceedings are appropriate on the remanded portion of USI A-47, Shoreham's licensing need not be delayed.

In Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-83-27, 18 NRC 1146 (1983), the

Commission permitted fuel loading and precriticality testing even though Appeal Board hearings were still in progress on significant quality assurance issues.^{12/} The Commission found there that the "risk to public health and safety from fuel loading and precriticality testing is extremely low since no self-sustaining chain reaction will take place" Id. at 1149. This extremely low risk justified authorizing the activities in question even though adjudicatory hearings on significant quality assurance issues had not been completed. For the same reason, Shoreham may be permitted to conduct Phase I and Phase II operations, notwithstanding any pending proceedings on USI A-47. Phase I of LILCO's low power testing program is essentially identical to the testing authorized in Diablo Canyon. In addition, Phase II testing (initial criticality) also presents essentially no risk to the public. Order Reconsidering Summary Disposition of Phase I and Phase II Low Power Testing (September 5, 1984); see Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), Initial Decision at

^{12/} In the past, the County has attempted to minimize the impact of Diablo Canyon because of its procedural posture. Diablo Canyon's low power license had been suspended by the Commission in an enforcement action. The case cited above considered reinstatement of that license. While there clearly are procedural differences between Diablo Canyon and Shoreham the principle for which Diablo Canyon stands applies here with equal force: The existence of adjudicatory hearings, even on significant, substantive issues, is not an absolute bar to licensing fuel loading and certain low power testing activities.

11-17 (October 29, 1984) (hereinafter "Initial Decision"). Thus, consistent with Diablo Canyon, Phase I and II activities may be conducted now regardless of the Board's decision on further A-47 hearings.

In Diablo Canyon, the Commission also considered activities beyond fuel loading and pre-criticality testing. Additional activities were not authorized because the "serious and substantive safety concerns relating to design quality assurance" which had led to the license suspension were still the subject of Appeal Board hearings. 18 NRC at 1150. The clear lesson of Diablo Canyon is that the decision to permit plant operation in the face of ongoing hearings must rest on the equities involved. Indeed, the Commission implied that its analysis of activities beyond fuel loading might well have been different if the Diablo Canyon suspension had been purely procedural or, as is the case here, a matter of clarifying uncertainties in the record. Id.

The Diablo Canyon approach is consistent with action taken in other cases involving remands for further proceedings.^{13/} The

^{13/} In cases involving remanded issues, the applicant has generally already received an operating license or construction permit by the time the Appeal Board or Commission renders its decision. Thus, the question is whether such license or permit should be revoked or suspended pending resolution of the remanded issues. There is no reason why the same analytical principles should not apply here in deciding whether to issue a license in the face of a remand. This is particularly so since it is merely fortuitous that Commission authorization of LILCO's Phases I and II license has been delayed over two months.

test for whether authorized activities should be permitted during consideration of the remand has three elements. First, the gravity of the questions being litigated must be considered. Consumers Power Co. (Midland Plant, Units 1 and 2), ALAB-458, 7 NRC 155, 159 (1978); see Diablo Canyon, 18 NRC at 1150. Second, the Board should undertake a "traditional balancing of equities." Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), CLI-77-8, 5 NRC 503, 521 (1977); Midland, 7 NRC at 169. And third, consideration must be given to any likely prejudice to further decisions that might be called for by the remand. Seabrook, 5 NRC at 521; Midland, 7 NRC at 173. Application of this test to Shoreham dictates that the Board should authorize fuel load and low power testing for Shoreham even if hearings on USI A-47 are held.

The matters remanded on USI A-47 do not present serious and substantive questions concerning the safety of Shoreham. As already noted, Phase I and Phase II activities present essentially no risk to the public health and safety even assuming an accident occurs. For operation beyond Phases I and II, the remanded questions on A-47 present no real safety concern. The Appeal Board found that with respect to USI A-47, "there has been no showing of a 'discerned safety problem'". ALAB-788 at 57. (Footnote omitted). In fact, the Appeal Board noted that the record reflected that the NRC Staff knew of no specific control system failures

which would lead to undue risk to the public, that the Staff believed there was a low probability of any control system failure consequences more serious than already analyzed, and that the Staff had concluded that the ultimate resolution of A-47 would have no significance for Shoreham. ALAB-788 at 57-59. Moreover, this Licensing Board found that control systems interactions had been accounted for in the design process for Shoreham. See, e.g., LBP-83-57, unpublished Findings of Fact J-46 to -53, J-86 to -89.

None of these findings was overturned on appeal. Rather, the Appeal Board merely found the record below incomplete. Since the Staff had required confirmatory studies before finally resolving A-47 for Shoreham, the Appeal Board believed it appropriate to include the results of those studies in the adjudicatory record. ALAB-788 at 57-59. Nowhere is there any evidence or suggestion that any safety problem exists for Shoreham. Thus, this factor favors the issuance of a low power license for Shoreham.^{14/}

A consideration of the equities involved also favors issuing a low power license now. In its recent decision, the Low Power Licensing Board had occasion to consider the equities associated

^{14/} That LILCO is only seeking a low power license also weighs in favor of a finding of limited safety significance. The degree of potential danger to the public health and safety is substantially less at low power than at full power. See Initial Decision at 77 (Finding 23). As explained in more detail below, numerous recently licensed plants have been permitted to operate at full power without having completed the studies in question here.

with immediate operation of Shoreham versus further delay. Many of those considerations are pertinent here. The Low Power Licensing Board found that Shoreham is physically completed, that further delay in the plant would impose financial hardships, that early operation could reduce dependence on foreign oil and that LILCO has borne the burden of unusually heavy and protracted litigation. Initial Decision at 59-62. All of these factors weigh in favor of granting a low power license for Shoreham.

Important equitable considerations also include the facts that the studies in question have been completed, that they have been reviewed and approved by the NRC Staff, and that Suffolk County has had the results of these studies for over a year. Certainly, if these studies had revealed any significant safety deficiencies at Shoreham, any party wishing to challenge them could have, and should have, raised the issues in a timely fashion. Parties to this proceeding have not been reluctant to move to reopen the record in the past where they believed important safety concerns existed.

Another equity favoring issuance of a low power license is the NRC's established practice of licensing plants without requiring completion of the two studies in question. The control systems and high energy line break studies performed by LILCO to resolve USI A-47 are in the nature of confirmatory studies.^{15/}

^{15/} Unlike USI's in which a specific concern has been identified, the purpose of USI A-47 is to ensure that existing regu-

Thus, over the last two years, at least five other plants that have been required to perform the same two studies have not had to do so prior to fuel load. For example, the operating license for Susquehanna 2 issued on March 23, 1984 included a license condition mandating resolution of the multiple control system failure and high energy line break issues prior to exceeding 5% power.^{16/} The licenses for WPPSS 2, Susquehanna 1, Grand Gulf and La Salle 1 all included similar license conditions, except that resolution was not required until prior to startup following the first refueling outage.^{17/} Consequently, consistent with the Commission's practice at other plants, fuel load need not be delayed pending any hearings on the results of the studies.

(footnote continued)

latory criteria address potential control systems interactions. Tr. 7436-37 (Rossi); Staff Ex. 2A (SER), at B-15; Spies et al., ff. Tr. 6357, at 44-45; see Tr. 6504, 7436-37, 7455-56 (Rossi).

^{16/} The Susquehanna 2 operating license, NPF-22, issued March 23, 1984, requires resolution of these issues prior to extending 5% of power in ¶ 2.C(10)(a) and (b) (See Attachment 16).

^{17/} The following four operating licenses require resolution of these issues prior to completion of the first refueling outage:

1. WPPSS 2, OL NPF-21 (December 20, 1983), at ¶ 2.C(22)(b) and (c) (see Attachment 17);
2. Susquehanna 1, OL NPF-14 (July 17, 1982), at ¶ 2.C(25)(a) and (b) (see Attachment 18);
3. Grand Gulf, OL NPF-13 (July 16, 1982), at ¶ 2.C(25), (26) (see Attachment 19);
4. LaSalle 1, OL NPF-11 (April 17, 1982), at ¶ 2.C(19)(a) and (b) (see Attachment 20).

In short, a balancing of the equities weighs heavily in favor of issuing a license to conduct low power testing even if further hearings are conducted on USI A-47.

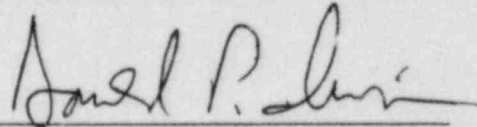
Finally, issuance of a low power license would not prejudice future resolution of the USI A-47 issue. As the Commission emphasized in Diablo Canyon, limited authorizations to conduct operations in no way prejudice future decisions. 18 NRC at 1149. If review of the USI A-47 studies leads to the conclusion that further analysis is warranted, such analysis is not prejudiced by the issuance of a low power license. Similarly, if the studies indicate design changes are warranted to reduce the risk from certain control system interactions, low power testing can be stopped and the modifications made. Certainly, the risk of prejudice is no different in the case of Shoreham than for any other plant now operating while A-47 remains generically unresolved. Indeed, LILCO is in a much better position because it has completed the required studies whereas other plants were not required to complete them until as late as the first refueling outage. Thus, future resolution of USI A-47 for Shoreham will not be prejudiced by permitting LILCO to conduct low power testing now.

CONCLUSION

As demonstrated above, each of the minor issues remanded by the Appeal Board in ALAB-788 has been substantively resolved and the Licensing Board should dismiss them. In any event, if the Board decides to conduct further proceedings on any issue, those proceedings should not delay issuance of a low power license for Shoreham.

Respectfully submitted,

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DATED: November 14, 1984

LILCO, November 14, 1984

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

'84 NOV 15 A9:12

Before the Atomic Safety and Licensing Board

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

ATTACHMENTS TO
LILCO'S REPORT ON REMAND ISSUES PURSUANT
TO LICENSING BOARD'S NOVEMBER 5, 1984 ORDER

1. Affidavit of Edward G. Greenman in Response to ALAB-788, November 7, 1984.
2. Letter, Bernard M. Bordenick to Attached Service List, August 7, 1984, attaching Memorandum for Edward Reis, Assistant Chief Hearing Counsel, from A. Schwencer, Chief, Licensing Branch #2, July 30, 1984 and other documents.
3. SNRC-911, J. L. Smith (LILCO) to Harold R. Denton (NRC), June 24, 1983, with attachments.
4. SER Supplement 7 (September 1984), ¶ 3.11 (pages 3-6 -3-10).
5. Affidavit of Robert G. LaGrange in Response to ALAB-788, November 13, 1984.
6. SNRC-761, J. L. Smith (LILCO) to Harold R. Denton (NRC), August 27, 1982, with attachment.
7. Letter, A. Schwencer (NRC) to M. S. Pollock (LILCO), November 24, 1982, with attachment.
8. SNRC-872, J. L. Smith (LILCO) to Harold R. Denton (NRC), April 22, 1983.
9. SNRC-905, J. L. Smith (LILCO) to Harold R. Denton (NRC), June 20, 1983, with attachment.

10. SER Supplement 4, §§ 7.5, 7.7.1, 7.7.2 (September 1983)
11. SNRC-786, J. L. Smith (LILCO) to Harold R. Denton (NRC), November 8, 1982 attachment omitted because of bulk.
12. Letter, A. Schwencer (NRC) to M. S. Pollock (LILCO), January 24, 1983.
13. SNRC-887, J. L. Smith (LILCO) to Harold R. Denton (NRC), May 11, 1983.
14. Affidavit of Andrew J. Szukiewicz in Response to ALAB-788, November 13, 1984.
15. Affidavit of Jerry L. Mauck in Response to ALAB-788, November 13, 1984.
16. Operating License NPF-22 (Susquehanna 2), March 23, 1984, excerpt.
17. Operating License NPF-21 (WPPSS 2), December 20, 1983, excerpt.
18. Operating License NPF-14 (Susquehanna 1), July 17, 1982, excerpt.
19. Operating License NPF-13 (Grand Gulf), June 16, 1982, excerpt.
20. Operating License NPF-11 (LaSalle 1), April 17, 1982, excerpt.

LILCO, November 14, 1984

DOCKETED
11/15/84

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ATTACHMENT 1