

2/22/83

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

DOCKETED
NRC

'83 FEB 23 AIO:16

Before the Atomic Safety and Licensing Board

SECRETARY
TRAINING & SERVICE
BRANCH

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

Docket No. 50-322 O.L.

SUFFOLK COUNTY SUBMISSION CONCERNING
AFFIDAVIT OF JAMES H. CONRAN, SR.
AND REQUEST THAT THE RECORD BE
REOPENED TO RECEIVE THE CONRAN AFFIDAVIT

On February 8, 1983, James H. Conran, Sr., a senior systems engineer employed by the NRC and a NRC Staff witness in this proceeding on SC/SOC Contention 7B, docketed a 33-page Affidavit. The Affidavit addressed the two primary issues on which Mr. Conran had testified in the Shoreham proceeding and two of the central Contention 7B issues: systems interactions, particularly related to unresolved safety issue ("USI") A-17; and safety classification, particularly related to LILCO's compliance with regulatory requirements pertaining to structures, systems and components ("S&Cs") which are important to safety but not safety-related. Mr. Conran described the purpose of the Affidavit as follows:

[T]o identify for the Board (1) areas in which I believe that testimony which I provided earlier in the litigation of Contention 7B requires (or may require) amending and/or supplementing, and (2) changes that have occurred in facts or circumstances material to the matters at

DS03

issue in Contention 7B which give rise to the need for amending and/or supplementing the testimony involved. The affected testimony falls into two general topic areas, systems interaction and safety classification. Conran Affidavit at 1.

On February 9, 1983, the Licensing Board and counsel for the parties conferred by conference call concerning how the Conran Affidavit should be addressed. The Board directed the parties to file their views by February 22, 1983. The Board subsequently confirmed the conference call directives by written order. See Confirmatory Memorandum and Order Directing that Parties Submit Views on the February 8, 1983 Affidavit of James H. Conran, Sr. and Its Effects on the Litigation of Contention SC/SOC 7B, dated February 11, 1983. The specific issues on which the Board requested the parties' views are:

1. Whether the Contention 7B record must or should be reopened to incorporate the Conran Affidavit as an amendment to Mr. Conran's prior testimony. In answering this question, the parties were requested to identify the principal portions of the prior testimony that are changed and briefly analyze how/to what extent the testimony is changed. The parties also were asked to review proposed findings that might be changed or added in view of the Affidavit.

2. Whether allowing the Conran Affidavit into evidence will require Mr. Conran to be questioned by the parties. If so, parties were to outline areas of questions and provide time estimates.

3. Whether allowing the Conran Affidavit into evidence will require any party to present additional testimony on Contention 7B. If so, the party is requested to outline the subject(s) and scope of the testimony and to identify (at least by discipline and organization) the witnesses.

I. The Record Must Be Reopened to Include the Conran Affidavit

The Contention 7B record must be reopened to receive the Conran Affidavit. Mr. Conran was the chief Staff witness on USI A-17, and one of the lead Staff witnesses on the overall systems interaction issue.^{1/} With regard to the "important to safety"/ safety classification issue, Mr. Conran was the chief Staff witness, and even sponsored rebuttal testimony when a concern was raised dealing with the correctness of IILCO's interpretation of the NRC's regulatory requirements.^{2/} Thus, Mr. Conran was not a minor or unimportant member of the Staff 7B panel; rather, on two of the key 7B issues, Mr. Conran clearly was a lead participant.

^{1/} Mr. Conran was the sponsor of the Staff's USI A-17 testimony which appears at pages 34-42 of the Prefiled Staff Testimony. Mr. Conran also was listed as the sponsor of the additional Staff systems interaction testimony (pp. 31-34), but during examination, it became clear that other panel members also had worked on that testimony. Speis, et al., ff. Tr. 6357, at 2; Tr. 6384-96.

^{2/} See Speis, et al., ff. Tr. 6357, at 4-6; Conran, ff. Tr. 6368.

Mr. Conran's Affidavit makes unmistakably clear that a variety of circumstances have led him to alter his prior testimony in two extremely significant respects. First, he reverses his earlier opinion and finds that the necessary North Anna findings on USI A-17 cannot be made. Second, he reverses his earlier opinion and states that LILCO's misinterpretation of the term "important to safety" is a substantive problem. These are clearly material, significant changes in his testimony -- indeed, complete reversals of his testimony on key safety issues. The bases for Mr. Conran's new position are set forth in detail in Mr. Conran's 33-page Affidavit. With these changes, Mr. Conran's testimony strongly supports the positions taken by Suffolk County on these two issues. See Suffolk County Proposed Findings, January 31, 1983, Vol. 1, pp. 11, 28-42, 101-25.

The County submits that this Board must take Mr. Conran's Affidavit into evidence. If the Board were to ignore Mr. Conran's Affidavit, such action would leave the Board relying on the prior record when it knows that record is no longer accurate in certain material respects. The resulting initial decision of the Board would necessarily be flawed. Accordingly, this Board must take cognizance of the Affidavit by, at a minimum, placing it in evidence so that the record accurately reflects this witness' views.

The County emphasizes that Mr. Conran's changes of opinion are extremely significant. In accordance with the Board's

request, the County sets forth in Attachment 1 a compilation prepared by Suffolk County of the changes in Mr. Conran's prior testimony which are caused by his recent Affidavit. Attachment 2 is a similar compilation provided to Suffolk County by the Staff on February 18, 1983.^{3/} Attachment 3 sets forth a compilation prepared by Suffolk County of changes in proposed findings submitted by the parties and includes notations where additional findings would be proffered by Suffolk County in view of the Conran Affidavit.^{4/} In the County's view, the testimony and findings changes are far reaching. Set forth below is a brief summary of those changes.

On USI A-17, Mr. Conran provided Contention 7B testimony which supplemented and updated the USI A-17 discussion contained at pages B-9 through B-11 of the Staff's SER. See Speis et al., ff. Tr. 6357, at 34-42; NUREG-0420, at B-9 through B-11. This testimony was in rebuttal to that of Suffolk County which had asserted on USI A-17 that the North Anna findings could not be made. See Goldsmith et al., ff. Tr. 1114, at 51-54, 57-60; see

3/ The Staff counsel informed Suffolk County that its compilation was only a draft. In view of this fact, the County has not attempted to integrate Attachments 1 and 2.

4/ The County emphasizes that Attachments 1 and 3 were prepared by the County under a tight schedule and thus do not purport to be a comprehensive listing of all testimony and findings changes caused by Mr. Conran's Affidavit. They are sufficient, however, to document the significant nature of the changes.

also Tr. 1099 (Board indicating that USI A-17/North Anna findings are in controversy in Contention 7B). Mr. Conran concluded his testimony on USI A-17 by reiterating the Staff's SER conclusion that existing deterministic methods were satisfactory to address systems interactions until the USI A-17 program reached resolution. Speis et al., ff. Tr. 6357, at 41-42; see NUREG-0426, at B-11.

Mr. Conran now has materially and significantly altered his prior USI A-17 testimony and concludes that the essential North Anna findings cannot be made.

Despite unfavorable developments that had occurred with respect to these important parameters in the systems interaction program in the months preceding the presentation of staff's testimony on Contention 7B in the Shoreham hearing, I had remained hopeful at that point regarding the ultimate outcome of events in the systems interaction area and regarding the prospects for resolution of USI A-17 on some reasonable and still acceptable schedule. But there has been further decline in the months since; and the cumulative effect is now such that I can no longer continue, in good conscience, to support the position that the staff's systems interaction program provides currently an adequate basis for the "justification for operation" conclusion required under North Anna, as indicated in my earlier testimony. Conran Affidavit at 2 (emphasis supplied).

Mr. Conran explains in detail in the Affidavit the bases for this change in position, with the primary one being that the Staff USI A-17 program has made essentially no progress toward timely resolution of this important safety issue. Mr. Conran now feels, therefore, that an applicant such as LILCO must perform limited systems interaction analyses. Id. at 12-13. This

testimony now directly supports the position taken by Suffolk County and contradicts the Staff's USI A-17 findings. See Suffolk County Proposed Findings, January 31, 1983, Vol. 1, pp. 13, 78-80, 259-62; Goldsmith et al., ff. Tr. 1114, at 58-60; Staff Proposed Findings, February 11, 1983, Vol. 2, pp. 41-42 and accompanying findings of fact.^{5/}

On the "important to safety" systems classification issue, the change in Mr. Conran's position has been just as dramatic as on USI A-17. During the Contention 7B hearing, Mr. Conran testified that LILCO had failed to interpret the term "important to safety" correctly. However, he concluded that this was a "language" problem only. On the substantive point of whether LILCO understood what the NRC's regulations require, Mr. Conran testified that there was close agreement between the Staff and LILCO. Given this situation, Mr. Conran saw no need to require LILCO to compile a list of SS&Cs important to safety. See, e.g., Conran, ff. Tr. 6368, at 2; Tr. 6538-39, 6974. This Staff testimony was directly contrary to the testimony of Suffolk County's witnesses who asserted that LILCO's misinterpretation of regulatory requirements constituted a serious safety concern and was directly contrary to the position taken by Suffolk County in its proposed findings. See Suffolk County Proposed Findings, January 31, 1983, Vol. 1, pp. 11, 28-42, 101-25; Goldsmith et al., ff. Tr. 1114, at 20-22.

^{5/} LILCO presented no proposed findings on USI A-17 despite the Board's May 4, 1982 ruling that USI A-17 was clearly relevant to Contention 7B. See Tr. 1099 (Board).

Mr. Conran has now sharply altered this prior view and essentially adopts a position close to that advocated by Suffolk County. Thus, Mr. Conran no longer believes that LILCO's misinterpretation of the term "important to safety" is just a language problem.

- Mr. Conran states that LILCO and the Staff are "not near a meeting of the minds on the very important fundamental safety concept at root in this matter." Conran Affidavit at 29.
- Mr. Conran believes there is not just a language problem involved but rather there is "a substantive defect in Applicant's true understanding of what is really at a minimum necessary to protect public health and safety." Id. at 31.
- In contrast to earlier testimony that the SRP and regulatory guides ensure proper safety classification during the design and construction phase, Mr. Conran now states these only "perhaps" offer a "safety net" or "backstop." He emphasizes now that these provide no safety net during operations. Id. at 32.
- Mr. Conran believes LILCO should be required to prepare a listing of all SS&Cs important to safety as a demonstration of LILCO's understanding of regulatory requirements. Id. at 32-33.

Accordingly, on the important to safety issue, as on USI A-17, Mr. Conran's Affidavit constitutes a clear and unequivocal disavowal of his prior sworn testimony.

The foregoing summary, plus the Attachments, make clear that Mr. Conran, a lead Contention 7B witness for the Staff, has essentially repudiated his earlier testimony on two issues. The County submits that this situation cannot be ignored; at a minimum, this Board must take the Affidavit into evidence. Otherwise, this Board would be reaching a decision on the basis of evidence which, at least in part, had been repudiated and would be ignoring evidence by the same witness, which (if Mr. Conran is believed) would compel the conclusion that certain essential findings (the North Anna USI A-17 findings and findings regarding compliance with the NRC's General Design Criteria) cannot be made. Accordingly, this Board must make Mr. Conran's new position part of the evidentiary record.

Even if this situation is viewed solely pursuant to the NRC's reopening standards, the Board must again open the record to receive the Conran data. Under NRC practice, records may be reopened if three criteria are met: the request is timely; the request addresses significant safety issues; and a different result might be reached if the proffered material is considered. See, e.g., Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-598, ___ NRC ___, CCH Nuc. Reg. Rptr. ¶ 30,500 (1980); In the Matter of Kansas Gas and Electric Co. (Wolf Creek Generating Station, Unit 1), ALAB-462, 7 NRC 320, 328 (1978); In the Matter of Vermont Yankee Nuclear

Power Corporation (Vermont Yankee Nuclear Power Station), ALAB-138, 6 AEC 420, 523 (1973). These standards clearly are met.

First, the County by this filing is formally requesting that the record be reopened to receive Mr. Conran's Affidavit. This request is timely. Timeliness is dependent upon when an intervenor learns of the new information. See Wisconsin Electric Power Co. (Point Beach Nuclear Plant, Unit 2), ALAB-86, 5 AEC 376 (1972). The County learned of the Conran Affidavit on February 8, 1983, and has moved promptly pursuant to ASLB directive to address the reopening issue.^{6/}

Second, the new information concerns significant safety issues. On systems interaction, the new data raise serious questions about the adequacy of the Staff's USI A-17 program and the ability to make the required North Anna findings given the progress of the Staff's program. This USI A-17 program addresses the systems interaction question, a matter of undeniable safety significance, particularly given its "A" designation among unresolved issues. On safety classification, a significant safety issue again is raised concerning whether LILCO has properly

^{6/} During the Conference Call on February 9, 1983, the Board and LILCO expressed displeasure regarding the fact that Mr. Conran waited until February 8, 1983 to file his Affidavit. The County believes this is not pertinent to the timeliness of the County's request for reopening. The County would have preferred to receive the Affidavit earlier, particularly before Findings were submitted. However, there is still an opportunity to move expeditiously to consider these data and to incorporate them in the Board's decision making process.

interpreted NRC regulatory requirements. The proper interpretation and understanding of such requirements -- particularly the NRC's General Design Criteria -- have undeniable safety significance. Indeed, the "important to safety" issue has safety significance far beyond merely classification of SS&Cs and directly affects other aspects of LILCO's regulatory compliance, as relating to quality assurance and environmental qualification.

Finally, the new information could lead to a different result -- in the sense of a different initial decision.

Mr. [redacted] had previously urged the Board to find that the North Anna requirements had been satisfied and that LILCO, in substance, had classified SS&Cs properly. Mr. Conran has now reached directly contrary conclusions. If Mr. Conran's new position is accepted by the Board, this would result in a different decision on these two critical aspects of Contention 7B.

In addition to the foregoing traditional reopening criteria, there is a further factor which makes reopening particularly appropriate in this instance: there has been no initial decision. Accordingly, the reopening can be accomplished so that the new data can be incorporated in the Board's initial consideration of Contention 7B. See Vermont Yankee Nuclear Power Corporation (Vermont Yankee Nuclear Power Station), ALAB-124, 6 AEC 358, 365 (1973) (distinguishes Supreme Court case where reopening was sought after final decision). Indeed, the record has not been formally closed on Contention 7B. Rather, even though the 7B

hearing ended in July, the parties cited in their findings evidence from the subsequent QA/QC contentions.^{7/} Thus, this is a situation where the Board is asked to consider additional evidence relevant to a safety issue and can consider such evidence within the context of its initial decision making process. This fortuitous timing makes it all the more appropriate to grant the reopening.

Further, this is an instance where the new data (the Conran Affidavit) raise a serious question about the ability of the Board to reach accurate conclusions on the basis of the existing record. In other instances, the Board has requested additional data when the evidence was insufficient for full decision by the Board (for example, additional testimony on water hammer procedures and SRVs, and additional Staff data on uncontested generic safety issues). The Board should similarly welcome additional data on Contention 7B so that the record will be complete and accurate on this issue as well.

II. Whether Mr. Conran Should be Asked Questions Regarding the Affidavit

Suffolk County would be satisfied to receive the Conran Affidavit into evidence without the necessity for asking him

^{7/} E.g., LILCO Proposed Findings, January 17, 1983, Vol. 2, Nos. B-187, B-236, B-239, B-240, B-243 thru B-248; Suffolk County Proposed Findings, January 31, 1983, Vol. 1, Findings 7B:28-29, 48-63.

questions thereon or any party proffering additional testimony. Under these circumstances, the County would ask only for an opportunity to revise its Contention 7B findings to reflect the new data.

The County will not oppose any party which may request an opportunity to pose questions to Mr. Conran. In such event, the County's questions will primarily be of a followup nature, based upon the questions of the other parties and/or the Board. The County cannot provide a time estimate under these circumstances, but expects its questioning to be relatively short and necessarily dependent upon the extent of the questioning by the other parties or the Board.

In the event other parties request the opportunity to supply additional testimony (see Part III below), then Suffolk County does request that Mr. Conran be made available for questioning. The main purpose of the questioning would be to request Mr. Conran whether the additional testimony obviates the concerns he has expressed in his Affidavit.

III. Whether Additional Testimony Needs to be Proffered by the Parties

The County does not independently request an opportunity to present additional testimony. However, if the Board determines that additional testimony or evidence will be permitted and the Staff and/or LILCO avail themselves of the opportunity, the County will submit testimony on the following:

1. Data/testimony to corroborate the lack of progress on USI A-17. This testimony will also address the need for LILCO to perform the limited systems interaction analyses advocated by Mr. Conran.

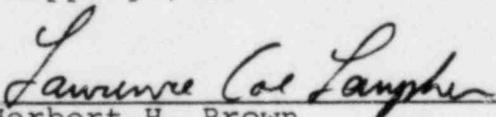
2. Data/testimony to demonstrate that the SRP/Regulatory Guide methodology does not provide an adequate "backstop" to cover all SS&Cs important to safety during design and construction.

3. Data/testimony to support need and feasibility for LILCO to prepare a list of SS&Cs important to safety. This will also address why the Staff proposal made at a LILCO/Staff meeting on February 18, 1983 (see Attachment 4), which Staff proposal was dissented to by Mr. Conran, is not acceptable or sufficient to ensure compliance with regulatory requirements.

With further opportunity to consider this matter, the County may refine these topics and either add to them or narrow them. The testimony will be sponsored by Messrs. Goldsmith, Minor and Hubbard, who have previously appeared on behalf of Suffolk County.

Respectfully submitted,

David J. Gilmartin
Patricia A. Dempsey
Suffolk County Department of Law
Veterans Memorial Highway
Hauppauge, New York 11788



Herbert H. Brown
Lawrence Coe Lanpher
Karla J. Letsche
KIRKPATRICK, LOCKHART, HILL,
CHRISTOPHER & PHILLIPS
1900 M Street, N.W.
Washington, D.C. 20036

February 22, 1983

Attorneys for Suffolk County

SC/SOC CONTENTION 7B: CONRAN ISSUE
ANALYSIS OF CONFLICTING TESTIMONY

NOTE: The following is a listing of potentially conflicting testimony between the Conran prefiled and oral testimony and the Conran Affidavit. Due to shortness of time, this listing is not comprehensive but is set forth as illustrative of the kinds of conflicts created by Mr. Conran's affidavit.

I. USI A-17

A. Prefiled Testimony vs. Affidavit

1.a. Prefiled

". . . the existing regulatory framework provides reasonable assurance against many types of potential systems interaction." (p. 36)

"NRR continues in the confidence that current regulatory requirements and procedures provide an adequate degree of public health and safety."
(p. 36)

". . . the NRC staff has affirmed repeatedly on numerous occasions (such as the one noted above) its view that, until the generic program is completed and provides the basis for making an orderly decision regarding the possible need for additional systems interaction requirements, adequate reasonable assurance of public health and safety is provided by compliance with current requirements and procedures." (pp. 36-37)

"Therefore, as stated in the SER for Shoreham, '. . . studies to date indicate that current review procedures and criteria supplemented by the application of post-TMI findings and risk studies provide reasonable assurance that the effects of potential systems interaction on plant safety will be within the effects on plant safety previously evaluated." (pp. 41-42; also, SER at B-11)

1.b. Affidavit

". . . at the time of my involvement and participation in the Shoreham hearing there were still a number of reasons to support the (hopeful)

view that the staff's system interaction program, although experiencing some serious difficulty was still adequate at that point." (p. 16)

". . . I can no longer continue, in good conscience, to support the position that the staff's systems interaction program provides currently an adequate basis for the "justification for operation" conclusion required under North Anna, as indicated in my earlier testimony." (p. 2)

1.c. Resulting Change/Conflict

Current regulations, together with the NRC's severely delayed A-17 SI program, are no longer adequate to assure resolution of potential SI concerns.

2.a. Prefiled

"Within the existing regulatory framework, the systems interaction concern is addressed by evaluating plant designs against well-established deterministic requirements and criteria embodied in existing regulatory guidance documents . . . Thus, although there is no explicit requirement for a dedicated, comprehensive systems interaction analysis of plant designs, and although there currently exists no well-defined, documented methodology for systematic analysis of plant designs for systems interactions, the existing regulatory framework provides reasonable assurance against many types of potential systems interactions." (pp. 35-36)

"As also noted in that letter to the ACRS, some events have occurred in the past at operating plants that have adversely affected safety system redundancy, and the functioning of safety systems have actually been degraded in other events . . . The frequency and possible implications of such events has prompted the staff to consider whether additional systems interaction analysis requirements should be developed and imposed in order to examine more fully than currently required the question of susceptibility of reactor plant systems to potential systems interactions . . . However, the NRC staff has affirmed repeatedly on numerous occasions . . . that . . . adequate reasonable assurance of public health and safety is provided by compliance with current requirements and procedures." (pp. 36-37)

2.b. Affidavit

"The decisions and actions taken in establishing both the initial USI A-17 program in 1978, and the augmented, post-TMI systems interaction program (II.C.3) in 1980, were taken within the context of an existing, established regulatory structure and process in which well-established (approved) deterministic" criteria and requirements define what is adequate safety unless/until changed . . ."
(pp. 8-9)

". . . Systems interaction analysis has inherent value . . . because its results can be used readily and effectively to improve safety (in the context of the current "deterministic" licensing approach) . . ."
(p. 23)

"'Things unanalyzed' in the design of reactor plant systems (e.g., common mode/common cause mechanisms, and the effects of non-safety component failure), can lead to 'things unexpected' in the operation of reactor facilities (e.g., occurrence of unanticipated events, including some serious enough to be termed accident precursors). And no matter how well trained or capable reactor operating personnel are (i.e., given some finite unreliability rate in operator actions), if the 'unexpected' happens often enough (and it does, based on operating experience reports) for long enough, the likelihood of a serious accident (like TMI-2) can become unacceptably high." (p. 6)

2.c. Resulting Change/Conflict

Deterministic requirements within the regulatory process are not adequate to address potential systems interactions. This has been proven by operating experience.

3.a. Prefiled

"Special limited-scope (spatially coupled, seismic initiator) system interaction analyses were performed at Diablo Canyon Units 1 and 2 and at San Onofre Unit 2."

A "major element in the expanded systems interaction program included under Action Plan Item II.C.3 is the broad-scope systems interaction evaluation of the Indian Point-3 facility by the Power Authority

of the State of New York (PASNY), employing a methodology developed by themselves . . . The actual study effort got underway in April 1982 and is progressing satisfactorily at this time. It is estimated that approximately one year will be required to complete this study." (pp. 39-40)

3.b. Affidavit

". . . in the months preceding my participation in the hearing, the program . . . was showing significant progress and results . . . For example, . . . prospects were very bright for the staff receiving extensive actual systems interaction review results from both Diablo Canyon and Indian Point-3 by late 1982." (p. 15)

". . . it is clear that the completion of the demonstration phase of the II.C.3 program will take significantly longer to complete than initially planned." (pp. 10-11)

". . . although extensive, broad-scope systems interaction search efforts have now been completed at the Diablo Canyon and Indian Point-3 facilities using utility-developed methods, it now appears certain (i) that the planned submittal of unevaluated search results to the staff in late 1982 or early 1983, will now be delayed until late 1983 (due to hearing related considerations and complications), and (ii) that the final submittal of evaluated Diablo Canyon search results, which had been expected in late 1982 is now delayed indefinitely (due to well-known licensing-related difficulties that have arisen in that case)."

3.c. Resulting Change/Conflict

Expected completion and implementation date for SI program now indefinite.

4.a. Prefiled

". . . the staff undertook a program to further develop available methods . . . and to incorporate them into what has been termed "Interim Guidance" that could be used by licensees/applicants for a comprehensive, systematic interaction evaluation of specific facilities . . . The documentation of one illustrative procedure . . . is essentially complete and ready for trial application of this point. Documentation of the second illustrative procedure is scheduled to be completed by August 1982." (p. 39)

"One remaining element in the staff's system interaction program plan under Action Plan Item II.C.3, which has not yet been approved or initiated by the NRC staff, is the so-called "Pilot Program" effort. As initially conceived, the Interim Guidance described in the preceeding was to be applied on a trial basis in several plants undergoing operating license review, and results from both the pilot plant analysis and the IP-3 study were to be evaluated in reaching a final decision regarding the need for additional requirements to perform expanded scope system interaction analysis on some or all LWRs." (p. 40)

4.b. Affidavit

". . . but to date no final approval has been given by NRR for implementation of any methodology demonstration studies under any option. In the process, however, the initially proposed NTOL pilot plant alternative . . . was discarded altogether." (p. 21)

". . . I would favor strongly this time around a currently-appropriate variation on the original recommendation made by the Lessons Learned Task Force in 1980 in this regard, . . . : Require all licensees and OL applicants to begin limited systems interaction reviews of their facilities immediately, using methods now known and documented for use on trial (even though not completely evaluated at this time). The reasons for favoring now the more direct and immediate approach are (i) the persistence of the safety concern . . . , and in further consideration of the fact that we have not yet addressed effectively or resolved the underlying causes of systems interaction type events in the three years that have passed since inception of II.C.3 . . . , and (ii) because there is indication today that licensees do not need to wait on the staff any longer to develop and demonstrate workable systems interaction methodologies that can produce safety-beneficial findings and results." (pp. 12-13)

"In this regard it is noted that, while the staff . . . has not developed and demonstrated workable systems interaction methodologies in the time allotted initially under the II.C.3 program, three utilities have done so (i.e., at Diablo Canyon,

Indian Point 3, and most recently at the Perry facility). Although the results of these efforts have not yet been fully evaluated by the utilities involved and reviewed by the staff, in several instances on the basis of licensees' own prudent judgment, modifications to facility designs have already resulted as a result of these systems interactions reviews." (p. 13)

4.c. Resulting Change/Conflict

No need for utilities to wait for the Staff to resolve the SI program, as it is proceeding along questionable grounds and progress is much delayed. NTOL's should be required to conduct limited SI analyses, as demonstrated already by 3 utilities.

5.a. Prefiled

Systems interaction analyses are not required by either the regulations or staff practice in the safety classification of structures, systems and components. (pp. 31-32)

5.b. Affidavit

"The decisions and actions taken established the systems interaction program, in a very real sense, as a necessary regulatory activity, i.e., as a USI program which under existing rules must be addressed in reactor licensing safety evaluations . . . (as contrasted to other highly desirable programs and activities such as probabilistic risk assessment, safety goal development, etc., also provided for in the TMI-2 Action Plan, but which need not be so addressed.)" (p. 5)

5.c. Resulting Change/Conflict

Progress on SI program is regulatory requirement. Since Staff has made little progress, NTOLs must perform SI studies. (See, also, Affidavit pp. 12-13).

B. Oral Testimony vs. Affidavit

1.a. Tr. 7138

The Indian Point-3 SI analysis program is scheduled to be completed by December of 1982 or early 1983.

1.b. Affidavit

". . . it now appears certain (i) that the planned submittal of unevaluated search results to the staff in late 1982 or early 1983, will now be delayed until late 1983 . . ." (p. 11)

1.c. Resulting Change/Conflict

Time delay for Staff review and resolution of A-17 efforts.

2.a. Tr. 7138-39

"The interim guidance is the methodology that has been developed for application in the pilot studies . . . It is a documentation of the methodology that we have identified as a promising candidate and we are going to try it out in several pilot programs."

"There is some thought, considerable thought, being given currently to applying the interim guidance or various candidate methodologies in the context of NREP plant studies, rather than a separate systems interactions program in what we call the pilot plants."

2.b. Affidavit

". . . but to date no final approval has been given by NRR for implementation of any methodology demonstration studies under any option. In the process, however, the initially proposed NTOL pilot plant alternative . . . was discarded altogether." (p. 21)

2.c. Resulting Change/Conflict

Pilot program for demonstration of SI analysis efforts postponed indefinitely.

3.a. Tr. 7141

There are, in the existing regulations, various sections which specify and give requirements for systems interaction type activities. These criteria are set forth in a piecemeal basis, "which we consider adequate, certainly, for licensing plants."

3.b. Affidavit

". . . staff's testimony on systems interaction in the Shoreham hearing included a discussion of USI A-17, with the specific objective of demonstrating "justification for operation" of Shoreham despite pendency of that USI." (emphasis supplied) (p. 1)

". . . I can no longer continue, in good conscience, to support the position that the staff's systems interaction program provides currently an adequate basis for the "justification for operation" conclusion . . . , as indicated in my earlier testimony." (p. 2)

3.c. Resulting Change/Conflict

Existing regulations, plus the lack of resolution of USI A-17, are not adequate for licensing in light of systems interactions concerns.

4.a. Tr. 7141-43

"The objective of [the A-17] program is to determine, first of all, whether or not there must be . . . improvements . . . We hold open the possibility that the studies would not produce positive results . . ."

"That is why, incidentally, we are contemplating something called the pilot program, where candidate methodologies are tried out on a very limited basis, rather than jumping in and requiring all licensees and applicants to do something beyond the existing regulations."

"Our judgment was that a judgment had to be made whether the return from that sort of program would be valuable enough to divert attention and resources, because if you make a requirement to do that sort of additional effort it implies that you must review what is done, and that takes considerable additional resources."

"So the judgment was that since we already had adequate, a perfectly adequate regulatory basis, that we wouldn't be diverted that way right now . . ."

4.b. Affidavit

I now strongly favor the following: "Require all licensees and OL applicants to begin limited systems interaction reviews of their facilities immediately, using methods now known and documented for use on trial (even though not completely evaluated at this time) . . . licensees do not need to wait on the staff any longer to develop and demonstrate workable systems interaction methodologies that can produce safety-beneficial findings and results." (pp. 12-13)

4.c. Resulting Change/Conflict

SI studies should be required and initiated immediately despite non-resolution of A-17, and complete evaluation of early SI analyses.

5.a. Tr. 7148

"The Diablo study, incidentally, we have not received a final report on yet. The ACRS endorsement or acceptance or enthusiasm that I indicated was for the methodology. The understanding, of course, was that we had not yet received a complete report."

Tr. 7563

The Staff plans to review the results of the Diablo study when the final report is received; this is scheduled for December of 1982.

5.b. Affidavit

". . . the final submittal of evaluated Diablo Canyon search results, which had been expected in late 1982 is now delayed indefinitely (due to well-known licensing-related difficulties that have arisen in that case). (p. 11)

5.c. Resulting Change/Conflict

Indefinite delay of Diablo input to Staff necessary for A-17 resolution.

6.a. Tr. 7152-53

With reference to the following statement from NRC's prefiled testimony on p. 41: "Studies to date indicate that current review procedures

and criteria supplemented by the application of post-TMI findings and risk studies provide reasonable assurance that the effects of potential systems interaction on plant safety will be within the effects on plant safety previously evaluated."

The term "studies" "includes everything that we have learned to date while we have been trying to do the systems interaction program, the early phases of the systems interaction program, which included considerable review of operating experience, early development efforts on methodology . . . activities which in our branch or in our section . . . might have identified a reason to hurry along or to require the additional requirements . . ."

"Nothing like that has come to the surface, and so it is our view that the regulatory requirements, the regulatory structure that is in place is still adequate. There has been no indication from any sector that the requirements that existed prior to the TMI accident supplemented by some changes that have been mandated by the studies that came out of the TMI accident . . . Nothing beyond that is required."

6.b. Affidavit

"The decisions and actions taken in establishing both the initial USI A-17 program in 1978, and the augmented, post-TMI systems interaction program (II.C.3) in 1980, were taken within the context of an existing, established regulatory structure and process in which well-established (approved) deterministic criteria and requirements define what is adequate safety unless/until changed by due process . . . Those decisions and actions were based broadly on widely-shared qualitative judgments regarding the importance of the issue involved and the necessity for prompt action and timely resolution . . ."
(pp. 8-9)

"Under this view, the program could be considered adequate currently simply because there is some systems interaction work currently underway (albeit well behind schedule), and because there is "no evidence"

that drastic measures must be taken to hasten resolution of the systems interaction problem. My view, instead, is that there is "no evidence" that the consensus judgments, regarding the seriousness of the safety concern involved and the need for timely resolution . . . were that wa ng in the first instance.

6.c. Resulting Change/Conflict

Reversal of reasoning. Just because adverse systems interactions have not surfaced, does not imply that they do not exist nor that they should not be resolved in a timely manner.

7.a. Tr. 7153-56
(see also Tr. 7564-65; 7659)

The detailed Diablo Canyon walkdown study did not necessarily indicate the benefit of undertaking detailed systems interaction analyses to supplement the existing deterministic procedures and requirements.

The criteria established for the Diablo Canyon study go beyond current NRC criteria. These criteria are not part of existing requirements; the NRC would not have imposed that upon them.

By the use of the term "requirements," I am talking about requirements of the regulations, and specifically, the single failure criterion.

"In the case of the Indian Point study, it was agreed in advance that we would adopt criterion for looking for . . . potential adverse systems interactions that is more stringent than existing criteria, but it was for study purposes, and unless agreed upon, expressly agreed upon later, would not be imposed on PASNY as a fixed criterion . . ."

"In the case of the Indian Point study, that more stringent criteria . . . is expressly not going to be applied as a decision criteria for making improvements or modifications to the plant."

7.b. Affidavit

Three utilities, including at Diablo Canyon and Indian Point-3, have developed and demonstrated workable systems interaction methodologies. Modifications to facility designs have already resulted as a result of these systems interaction reviews.

"So a broad scale effort involving limited-scope systems interaction reviews in all operating facilities and NTOL plants could both (i) produce safety beneficial plant specific findings (as has already been done) and (ii) at the same time provide much more expeditiously and extensively actual systems interaction data and information needed by the staff for making final decisions regarding the possible need for more comprehensive systems interaction reviews generically." (pp. 13-14)

7.c. Resulting Change/Conflict

Reversal of opinion re significance of Diablo and IP-3 studies and their implications for NRC SI requirements. Believes definite safety benefits to be gained from similar studies at other plants like Shoreham.

8.a. Tr. 7160

"The combination of considerations mentioned in A-17 writeup in the SER plus my additional testimony are those things that give us [Staff] this assurance" that Shoreham can be operated pending a full resolution of A-17.

8.b. Affidavit

". . . in the months preceding the presentation of staff's testimony on Contention 7B in the Shoreham hearing, I had remained hopeful at that point regarding the ultimate outcome of events in the systems interaction area and regarding the prospects for resolution of USI A-17 on some reasonable and still acceptable schedule. But there has been further decline in the months since; and the cumulative effect is now such that I can no longer continue, in good conscience, to support the position that the staff's systems interaction program provides currently an adequate basis for the "justification for operation" conclusion . . ." (p. 2)

8.c. Resulting Change/Conflict

Reversal of opinion on acceptability of Shoreham OL prior to resolution of USI A-17.

9.a. Tr. 6749

I prefer to wait until the NRC's studies, in which we plan to compare the various systems interaction analysis methods, are completed before making the decision toward a particular method.

Tr. 7508

No assessment has yet been made of whether a resource intensive undertaking like Indian Point should be required because the staff is not sure what the benefits are.

". . . that is why we are approaching it on a so-called pilot plant basis. The idea was to test what were considered to be promising candidate systems interaction methodologies . . . and observe . . . and compare the results from plant to plant, and see if it was worthwhile . . . And we are not in a position to draw those conclusions yet."

9.b. Affidavit

I now favor strongly the following: "Require all licensees and OL applicants to begin limited system interaction reviews of their facilities immediately, using methods now known and documented for use on trial (even though not completely evaluated at this time) . . . etc." (p. 5)

9.c. Resulting Change/Conflict

Reversal of opinion on need/desire to pursue SI studies at all plants prior to Staff evaluation of preliminary analyses.

10.a. Tr. 7634

The idea of doing a systems interaction study, without doing a PRA, is "an idea whose time has not only come but gone."

10.b. Affidavit

". . . the inter-system dependency information

developed in a systems interaction analysis is important in assuring the accuracy of PRA results; to such degree, in fact, that systems interaction analysis must be regarded logically as a prerequisite to PRA . . . even more importantly . . . systems interaction analysis has inherent value completely aside and apart from PRA, because its results can be used readily and effectively to improve safety, . . . even if PRA is never done." (pp. 22-23)

10.c. Resulting Change/Conflict

Expands value and worth of doing SI regardless of doing a PRA.

11.a. Tr. 7634-35

The use of systems interaction analyses, especially outside of the framework of a PRA, is not yet a regulatory requirement, nor should it be as the Staff hasn't proven the methods to be used.

11.b. Affidavit

The use of SI is a regulatory requirement. (p. 5)

NRC should require all licensees and OL applicants to begin SI reviews. Licensees do not need to wait on NRC to develop SI methodologies that can produce safety-beneficial findings and results. (pp. 12-13)

11.c. Resulting Change/Conflict

Reversal in opinion re necessity for doing SI analyses.

II. "IMPORTANT TO SAFETY" CLASSIFICATION

A. Prefiled Staff Testimony vs. Affidavit

1.a. Prefiled

". . . having a specific, well-defined group of safety-related (or safety grade) structures, systems and components to accomplish required safety functions allows both the applicant and the NRC staff to concentrate their efforts on structures, systems and components most important in achieving critical safety functions in case of an accident or emergency." (p. 7)

". . . safety-related structures, systems and components are placed on what we call the QA-list which is generally presented in Section 3.2.1 of the Safety Analysis Report submitted by the applicant." (p. 8)

"The remaining items in the total set of "important to safety" (i.e., those items which are important to safety but not safety-related) are subjected to quality assurance requirements in accordance with GDC 1. The staff's present review process does not require that this subset be specifically identified in a listing, nor has the staff developed quality assurance requirements, analogous to Appendix B, for these items." (pp. 8-9)

"With regard to those structures, systems and components important to safety but not classified as safety-related, compliance with the criteria and requirements of approved regulatory guidance documents (e.g., Standard Review Plan, Regulatory Guide, etc.) assures that such structures, systems and components are properly classified and addressed in the Applicant's submittal although they are not explicitly identified in a listing equivalent to the QA-list for safety-related items." (p. 10)

1.b. Affidavit

"In the construction and design phase, the very detailed SRP and Regulatory Guide information can perhaps provide a "safety net" or "backstop," to mitigate serious misunderstandings regarding staff's (and the regulation's) safety classification terms." (emphasis supplied). (p. 32)

LILCO does not use the term important to safety. ". . . cross-examination by staff counsel sought to establish equivalency between staff's and Applicant's understanding of the fundamental safety-concepts involved, even though the language was different . . . in responding to counsel's questions, Applicant's witnesses invariably couched their responses in a way that acknowledged some safety relevance to the specific examples provided of things "Important to Safety, but not Safety-Related," but carefully avoided acknowledgement or recognition that such items had enough safety relevance or importance to number them among that category of things required minimally for safety by the regulations." (p. 30)

"There now appears to be a substantive defect in Applicant's true understanding of what is really at a minimum necessary to protect public health and safety . . . understanding of the fundamental safety concepts underlying the usage of the term "Important to Safety" in the regulations cannot be imposed, (as for example by a condition to license). Understanding must be developed, and demonstrated . . ." (pp. 31-32)

"That is why I believe that a condition for (i.e., prerequisite to) a license in this case should be development by LILCO of a listing of "Important to Safety" structures, systems and components for Shoreham, as a vehicle and means for developing and demonstrating the requisite understanding of what is required minimally for safety in the operation of Shoreham." (p. 32)

"The staff . . . has continued the effort to develop a listing of "Important to Safety" structures, systems and components; and, recently, a draft report containing preliminary results of that effort has become available." (p. 30)

"There must be understanding of what is necessary minimally for safety as a prerequisite for safe operation. And because Applicant's understanding in that regard is so clearly called into question, by his own testimony, I believe there should be demonstration of remedy. The staff's preliminary (draft) listing of structures, systems and components "Important to Safety" (referred to above) could be used as a starting point . . ." (pp. 32-33)

1.c. Resulting Change/Conflict

(i) Existing regulatory guidance documents for SS&C classification (e.g., SRP, R.G.'s) do not necessarily provide adequate distinction and guidance for classification of SS&C's important to safety during design and construction.

(ii) NRC has realized that not only are such regulatory documents lacking in this area, but utilities (particularly Shoreham) have also not adequately distinguished and identified items important to safety (as opposed to safety-related). It is now apparent that the utility (LILCO) doesn't

understand the safety significance of that set of items "important to safety;" i.e., the problem that exists is more than simply inconsistent language.

(iii) As a result of NRC's realization of this dilemma, efforts have been underway to develop specific guidance for identifying and listing items important to safety, but not safety-related.

(iv) In light of the fundamental misunderstanding on the part of LILCO of what SS&Cs are minimally required for safety, it is no longer acceptable just to have a listing of safety-related SS&Cs, particularly during operational phase.

(v) As a condition for license, LILCO should be required to develop a listing of items "important to safety" as a means of assuring the staff that their understanding of what is minimally required for safety has been demonstrated.

E. Conran Rebuttal Testimony vs. Affidavit

1.a. Rebuttal

"There appears to be close agreement between most important aspects of the respective positions and conclusions of Staff and Applicant regarding adequacy of safety classification of Shoreham plant features, particularly as to the substantive technical safety classification consideration of issue. With regard to terminology employed in the safety classification of Shoreham structures, systems and components (i.e., which specific term should be applied to specific plant features, "Important to Safety" or "safety-related"), there is obvious disagreement between Applicant and the Staff." (p. 2)

1.b. Affidavit

"At the time of my participation in the Shoreham hearing, it was not clear to me, as it is now, . . . that LILCO truly does not understand what is required minimally for safety by NRC under the regulations (i.e., what is considered necessary and sufficient to provide reasonable assurance of no

understand the safety significance of that set of items "important to safety;" i.e., the problem that exists is more than simply inconsistent language.

(iii) As a result of NRC's realization of this dilemma, efforts have been underway to develop specific guidance for identifying and listing items important to safety, but not safety-related.

(iv) In light of the fundamental misunderstanding on the part of LILCO of what SS&Cs are minimally required for safety, it is no longer acceptable just to have a listing of safety-related SS&Cs, particularly during operational phase.

(v) As a condition for license, LILCO should be required to develop a listing of items "important to safety" as a means of assuring the staff that their understanding of what is minimally required for safety has been demonstrated.

B. Conran Rebuttal Testimony vs. Affidavit

1.a. Rebuttal

"There appears to be close agreement between most important aspects of the respective positions and conclusions of Staff and Applicant regarding adequacy of safety classification of Shoreham plant features, particularly as to the substantive technical safety classification consideration of issue. With regard to terminology employed in the safety classification of Shoreham structures, systems and components (i.e., which specific term should be applied to specific plant features, "Important to Safety" or "safety-related"), there is obvious disagreement between Applicant and the Staff." (p. 2)

1.b. Affidavit

"At the time of my participation in the Shoreham hearing, it was not clear to me, as it is now, . . . that LILCO truly does not understand what is required minimally for safety by NRC under the regulations (i.e., what is considered necessary and sufficient to provide reasonable assurance of no

undue risk to the health and safety of the public in the operation of a facility) . . . I was predisposed to think of the defect in Applicant's stated position regarding the safety classification term "Important to Safety" as simply a "language problem." (p. 2)

"The concerns that occupied me chiefly at the time of the hearing focused most heavily on the implications of language differences . . . My concern at this point is more serious, however, I no longer believe that our differences involve only a language problem to be sorted out mechanically. There now appears to be a substantive defect in Applicant's true understanding of what is really at a minimum necessary to protect public health and safety . . ." (p. 31)

"There must be understanding of what is necessary minimally for safety as a prerequisite for safe operation. And . . . Applicant's understanding in that regard is so clearly called into question, by his own testimony . . ." (pp. 32-33)

1.c. Resulting Change/Conflict

Differences between Staff and LILCO on important to safety issue are not just language issue but rather constitute a substantive difference.

C. Conran Oral Testimony vs. Affidavit

1.a. Tr. 6537-38

Applicants which comply with SRP and regulatory guides have first cut list of SS&Cs important to safety.

1.b. Affidavit

Mr. Conran questions adequacy of SRP/regulatory guides as "backstop" and for operations calls for LILCO to prepare list of SS&Cs important to safety. (pp. 32-33)

1.c. Resulting Change/Conflict

Mr. Conran clearly calls for listing of SS&Cs important to safety and questions adequacy of classification during design and construction.

2.a. Tr. 6958-67

Conran calls "important to safety" issue a language problem.

2.b. Affidavit

Conran calls "important to safety" issue a substantive problem. (pp. 28-33)

2.c. Resulting Change/Conflict

Complete reversal from "non-problem" to a very serious problem.

3.a. Tr. 6973-74

FSAR is sufficient listing of SS&Cs important to safety.

3.b. Affidavit

LILCO needs to compile listing of SS&Cs important to safety. (pp. 32-33)

3.c. Resulting Change/Conflict

FSAR listing is insufficient to demonstrate LILCO understanding of regulatory requirements.

4.a. Tr. 6971-78, 7495-96

LILCO testimony provides assurance LILCO understands GDC-1 requirements. For operations, need LILCO commitment.

4.b. Affidavit

LILCO testimony does not show understanding of GDC-1 requirements. (pp. 38-33)

4.c. Resulting Change/Conflict

Complete reversal of earlier testimony.

TESTIMONY ARGUABLY CHANGED BY AFFIDAVIT
OF JAMES H. CONRAN, SR., DATED FEBRUARY 9, 1983

1. Systems Interaction (A-17)

a. Tr. 6352, l. 18-19

Nature of change: Affidavit would render portions of Conran testimony no longer "true and correct."

b. ff. Tr. 6357, at 36, l. 21 through 37, l. 2

Nature of change: Affidavit would modify testimony that A-17 program has "progressed significantly" and would question "reasonable assurance" insofar as that conclusion depends on adequacy of program for resolution of A-17. (Affidavit at 2, 10)

c. ff. Tr. 6357, at 41, l. 12 through 42, l. 5

Nature of change: Affidavit would question testimony (as to Conran) concerning "reasonable assurance" insofar as that conclusion depends on adequacy of program for resolution of A-17. (Affidavit at 2, 10)

d. Tr. 6374, l. 20 through Tr. 6376, l. 3

Nature of change: Affidavit would question "reasonable assurance" insofar as that conclusion depends on adequacy of program for resolution of A-17. (Affidavit at 2, 10)

e. Tr. 7139, l. 1-4

Nature of change: Affidavit suggests that pilot program will not be used to try out candidate methodologies. (Affidavit at 21)

f. Tr. 7141, l. 20-22

Nature of change: Affidavit would question adequacy of Staff's compliance with existing process for licensing insofar as it depends on adequacy of program for resolution of A-17. (Affidavit at 2, 10)

q. Tr. 7153, l. 1-4

Nature of change: Affidavit would question adequacy of Staff's compliance with existing process for licensing insofar as it depends on adequacy of program for resolution of A-17. (Affidavit at 2, 10)

h. Tr. 7509, l. 6-12

Nature of change: Affidavit suggests that a requirement for systems interaction analyses should now be imposed on applicants. (Affidavit at 12-13)

2. Safety Classification

a. Tr. 6352, l. 18-19

Nature of change: Affidavit would render portions of Conran testimony no longer "true and correct."

b. ff. Tr. 6357, at 10, l. 11-18

Nature of change: Affidavit would modify testimony (as to Conran) that important to safety plant items have been adequately addressed by Applicant because of present view that Applicant does not understand these items to be required for safety. (Affidavit at 29, 31-32)

c. ff. Tr. 6357, at 46, l. 13 to end

Nature of change: Affidavit would modify testimony (as to Conran) that important to safety plant items have been adequately addressed by Applicant because of present view that Applicant does not understand these items to be required for safety. (Affidavit at 29, 31-32)

d. ff. Tr. 6368, at 2, l. 1-5

Nature of change: Affidavit would modify testimony that there is "close agreement" as to substantive classification issues. (Affidavit at 29)

e. Tr. 6959, l. 15-18

Nature of change: Affidavit would modify testimony that there has been agreement "on the substantive issues involved." (Affidavit at 29, 31-32)

- f. Tr. 6961, l. 2-8
Nature of change: Affidavit would modify testimony that there has been agreement on substantive classification issues despite differences in language. (Affidavit at 29, 31-32)
- g. Tr. 6974, l. 12-17
Nature of change: Affidavit would modify testimony by stating that while Applicant identified the important to safety items, it did not understand them to be minimally required for safety. (Affidavit at 29, 31-32)
- h. Tr. 6977, l. 1-3
Nature of change: Affidavit would modify testimony that Applicant "met our intent" by including caveat that it did not understand or acknowledge the minimal requirement for safety. (Affidavit at 29, 31-32)
- i. Tr. 6978, l. 2-18
Nature of change: Affidavit would modify testimony that the remaining problem identified is "small." (Affidavit at 29, 31-32)
- j. Tr. 6984, l. 18-25
Nature of change: Affidavit would modify testimony that stipulation to proper definition of important to safety would be sufficient. (Affidavit at 32-33)
- k. Tr. 7003, l. 4 through Tr. 7004, l. 12
Nature of change: Affidavit would modify testimony by stating that a demonstration of understanding is required rather than simply a commitment. (Affidavit at 32-33)
- l. Tr. 7122, l. 6-16
Nature of change: Affidavit would modify testimony by stating that a demonstration of understanding is required rather than simply a commitment. (Affidavit at 32-33)
- m. Tr. 7495, l. 12 through Tr. 7496, l. 4
Nature of change: Affidavit would modify testimony that there has been a "meeting of the minds for the past." (Affidavit at 29, 31-32)

n. Tr. 7718, l. 18-22

Nature of change: Affidavit would modify testimony to state that commitment sought must be based on demonstrated understanding of regulatory requirements. (Affidavit at 32-33)

o. Tr. 7720, l. 22 through Tr. 7721, l. 13

Nature of change: Affidavit would modify testimony to state that commitment sought must be based on demonstrated understanding of regulatory requirements. (Affidavit at 32-33)

p. Tr. 7749, l. 18-24

Nature of change: Affidavit would modify testimony to state that Applicant has not demonstrated understanding of the regulatory requirements concerning items important to safety. (Affidavit at 29, 31-32)

q. Tr. 7839, l. 18-20

Nature of change: Affidavit would modify testimony to state that the industry other than Applicant understands the intent of the regulations. (Affidavit at 29, 31-32)

PROPOSED FINDINGS POTENTIALLY
AFFECTED BY CONRAN AFFIDAVIT

I. LILCO Proposed Findings

A. USI A-17/Systems Interaction

1. B-79

Conran believes systems interaction analyses are required to be performed by LILCO.

2. B-80

Conran believes systems interaction analyses such as those done for Diablo Canyon and Perry have had real benefit.

3. B-296

Conran believes S.I. is necessary prerequisite to PRA.

4. B-317, B-318

Conran sharply disagrees with this description of Staff position. LILCO cites are to portions of Staff testimony authored solely by Conran.

5. B-335

Conran disagrees and recommends limited SI studies.

6. B-348

Conran believes other methodologies besides PRA are better for SI.

7. B-342

Conran believes there is a regulatory requirement for SI.

8. B-371 thru B-374

Conran Affidavit modifies in part and disagrees in part.

9. B-378
Conran disagrees with Thadani.
10. B-381
Conran disagrees re benefit of Indian Point type studies.

B. Important to Safety Classification

1. B-13
Conran questions adequacy of SRP/regulatory guide approach as backstop.
2. B-66
Conran Affidavit contradicts assertion that GDC have been appropriately applied by LILCO.
3. B-173
Conran believes LILCO must compile list of SS&Cs important to safety.
4. B-177
Conran believes the proper definition of the term important to safety matters with respect to LILCO.
5. B-197
Conran is not satisfied with LILCO's GDC-1 compliance, particularly as relates to operational phase.
6. B-198
Conran disagrees. LILCO is not achieving Denton Memorandum objectives.
7. B-200, 202, 203, 204, 207
Conran Affidavit is contrary to bulk of these findings.

8. B-208
Conran believes LILCO misinterpretation has made a substantive difference.
9. B-253
Conran disagrees.
10. B-257
Conran has changed his view here.
11. B-258, B-259
Conran disagrees.

II. NRC Staff Proposed Findings

A. USI A-17/Systems Interaction

1. 7B:150
Conran would question sufficiency of LILCO's studies. Believes limited additional SI studies are needed.
2. 7B:175
Conran would modify.
3. 7B:179-191
Conran would modify all, especially re implication of adequate progress on A-17 and re view of whether LILCO must do SI studies.
4. 7B:206
Conran disagrees that deterministic requirements are enough given lack of timely A-17 resolution.
5. 7B:207, 212
Conran believes at least limited SI analyses are required.

6. 7B:224

Conran would modify statements re Staff pursuit of SI program.

B. Important to Safety Classification

1. 7B:22-24

Conran questions adequacy of SRP as means to properly treat and identify SS&Cs important to safety.

2. 7B:26, 28, 30

Conran Affidavit questions whether LILCO understands regulatory requirements re nonsafety-related SS&Cs even if LILCO treats them in FSAR.

3. 7B:37, 39

Conran disagrees.

4. 7B:58

Conran disagrees that LILCO has complied with 10 C.F.R. Part 50, Appendix A.

5. 7B:74

Conran disagrees re listing of SS&Cs important to safety.

6. 7B:131-33

Conran disagrees.

7. 7B:135

Conran not sure SRP ensures items are properly addressed.

8. 7B:141

Conran requires more than a LILCO "commitment."

III. Suffolk County Proposed Findings

A. USI A-17/Systems Interaction

1. 7B:103-04

Conran strengthens view that SI studies must be undertaken; DBA approach not enough given lack of timely A-17 resolution.

2. 7B:281-82

Modify to emphasize need to have SI analyses to compliment DBA approach.

3. 7B:287-95

These findings are modified to address (1) inadequacy of DBA alone, absent timely resolution of A-17, (2) A-17 progress to date, (3) frequency of SI events, and (4) need for SI studies by LILCO.

4. 7B:298

Conran Affidavit makes clear his view that the SI studies done by LILCO to date are not adequate. Accordingly, Findings from 7B:298-431 may be amended to convey Conran's view.

5. 7B:386

Affidavit strengthens.

6. 7B:396-97

LILCO improper classification undercuts LILCO assumptions.

8. 7B:405-06

Expand. Conran supports SI analyses at Shoreham.

9. 7B:432-40

These findings will be greatly expanded and added to so that the status of A-17 is set forth, inability to make North Anna findings is emphasized, and a remedy re SI studies is included.

B. Safety Classification

1. 7B:8

Conran would support this finding and urge need for a listing of SS&Cs important to safety. County would have stressed need for listing with Conran's Affidavit.

2. 7B:26

This finding would be expanded with Conran Affidavit.

3. 7B:35

Would be expanded with Conran Affidavit.

4. 7B:65-74

These findings would be markedly changed by Conran Affidavit. Add findings re LILCO not understanding regulatory requirements and this being a substantive problem, not a language problem.

5. 7B:83

Expand based on Affidavit.

6. 7B:133

Affidavit supports need for listing of SS&Cs important to safety.

Amend the FSAR to commit for non-safety related structures, systems and components, to include in the preventive and corrective maintenance program, the design change control program, the procedures for procurement of equipment, the procedures for modifications and removal of equipment from service, and the QA program, a provision that, as a minimum, the equipment and associated software shall be accorded the safety significance given to it in the FSAR, the technical specifications and the emergency operating procedures. The charters and decisions of the Review of Operations Committee, the Offsite Nuclear Review Board, and the Manager of Quality Assurance shall also reflect these considerations.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

CERTIFICATE OF SERVICE

I hereby certify that copies of SUFFOLK COUNTY SUBMISSION CONCERNING AFFIDAVIT OF JAMES H. CONRAN, SR. AND REQUEST THAT THE RECORD BE REOPENED TO RECEIVE THE CONRAN AFFIDAVIT have been served to the following this 22nd day of February, 1983 by U.S. Mail, first class, except as otherwise noted.

Lawrence Brenner, Esq. (*)
Administrative Judge
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dr. James L. Carpenter (*)
Administrative Judge
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dr. Peter A. Morris (*)
Administrative Judge
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Edward M. Barrett, Esq.
General Counsel
Long Island Lighting Company
250 Old Country Road
Mineola, New York 11501

Mr. Brian McCaffrey
Long Island Lighting Company
175 East Old Country Road
Hicksville, New York 11801

Ralph Shapiro, Esq.
Cammer and Shapiro
9 East 40th Street
New York, New York 10016

Howard L. Blau, Esq.
217 Newbridge Road
Hicksville, New York 11801

W. Taylor Reveley III, Esq. (*)
Hunton & Williams
P.O. Box 1535
707 East Main St.
Richmond, Virginia 23212

Mr. Jay Dunkleberger
New York State Energy Office
Agency Building 2
Empire State Plaza
Albany, New York 12223

Stephen B. Latham, Esq.
Twomey, Latham & Shea
Attorneys at Law
P.O. Box 398
33 West Second Street
Riverhead, New York 11901

Marc W. Goldsmith
Energy Research Group, Inc.
400-1 Totten Pond Road
Waltham, Massachusetts 02154

Joel Blau, Esq.
New York Public Service Commission
The Governor Nelson A. Rockefeller
Building
Empire State Plaza
Albany, New York 12223

David J. Gilmartin, Esq.
Suffolk County Attorney
County Executive/Legislative Bldg.
Veterans Memorial Highway
Hauppauge, New York 11788

Atomic Safety and Licensing
Board Panel
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Docketing and Service Section
Office of the Secretary
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Bernard M. Bordenick, Esq. (*)
David A. Repka, Esq.
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Stuart Diamond
Environment/Energy Writer
NEWSDAY
Long Island, New York 11747

Daniel F. Brown, Esq.
Atomic Safety and
Licensing Board Panel
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Mr. Jeff Smith
Shoreham Nuclear Power Station
P.O. Box 618
North Country Road
Wading River, New York 11792

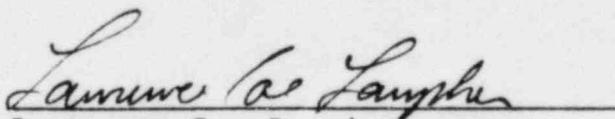
MHB Technical Associates
1723 Hamilton Avenue
Suite K
San Jose, California 95125

Hon. Peter Cohalan
Suffolk County Executive
County Executive/Legislative
Building
Veterans Memorial Highway
Hauppauge, New York 11788

Ezra I. Bialik, Esq.
Assistant Attorney General
Environmental Protection Bureau
New York State Department of
Law
2 World Trade Center
New York, New York 10047

Atomic Safety and Licensing
Appeal Board
U.S. Nuclear Regulatory
Commission
Washington, D.C. 20555

Matthew J. Kelly, Esq.
Staff Counsel, New York
State Public Service Comm.
3 Rockefeller Plaza
Albany, New York 12223


Lawrence Coe Lanpher
KIRKPATRICK, LOCKHART, HILL,
CHRISTOPHER & PHILLIPS
1900 M Street, N.W., 8th Floor
Washington, D.C. 20036

DATE: February 22, 1983

(*) By Hand