ORIGINAL

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the matter of:

LONG ISLAND LIGHTINH COMPANY

(Shoreham Nuclear Power Station

Docket No. 50-322 OL

Location: Riverhead, N.Y.

Pages: 20,345-20,531

Date: April 5, 1983

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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

- x

In the Matter of :

LONG ISLAND LIGHTING COMPANY : Docket No. 50-322-OL

(Shoreham Nuclear Power Station) :

- x

Riverhead County Complex

Center Drive

Riverhead, New York 11901

Tuesday, April 5, 1983

The hearing in the above-entitled matter reconvened, pursuant to recess, at 10:40 a.m.

BEFORE:

LAWRENCE BRENNER, Chairman
Administrative Judge

JAMES CARPENTER, Member
Administrative Judge

PETER A. MORRIS, Member
Administrative Judge

APPEARANCES:

On behalf of the Applicant:

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T. S. ELLIS, Esq.

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Hunton & Williams

707 East Main Street

Richmond, Virginia 23212

On behalf of the Regulatory Staff:

RICHARD RAWSON, Esq.

EDWIN J. REIS, Esq.

Washington, D.C.

On behalf of Suffolk County:

LAWRENCE COE LANPHER, Esq.

KARLA J. LETSCHE, Esq.

Kirkpatrick, Lockhart, Hill,

Christopher & Phillips

1900 M Street, N.W.

Washington, D.C. 20036

Also Present:

MARC W. GOLDSMITH

Suffolk County Consultant

President, ERG, Incorporated

C O N T E N T S

WITNESSES:	DIRECT	CROSS	REDIRECT	RECROSS
James H. Conran				
By Mr. Rawson	20,398			
By Mr. Ellis		20,404		

Page

Affidavit of James H. Conran 20,401

P R O C E E D I N G S

(10:34 a.m.)

JUDGE BRENNER: Good morning. We have a number of matters unrelated to the subject of the testimony which will commence shortly. These are matters that have been pending since our last session.

The first subject matter is the emergency planning motions and responses before us. We are going to rule on them to the fullest extent we can and decide the legal issues ourselves. Upon doing that, we will refer our ruling, if there are any issues that we can't decide, we will certify those along with that part of the decision which we will refer.

We expect to issue our decision the week of April 18th. That is obviously a present estimate. That depends on how long you are going to keep us here, to some extent.

We do have a few clarifying questions on some of the factual matters in the briefs on emergency planning. I would like to note them now in the hope that later this week we can get an oral response from the appropriate party to whom the question is directed. I want to emphasize we just want a direct response to what we believe are simple questions. We are not going to have arguments on the briefs.

In Suffolk County's reply brief of April 29th at page 14, note 8, there is a quotation attributed to an undated letter from the State DPC to the Board. In our copy of the letter we can find no such quote, so our question is, has the County misquoted the letter, or do you have a different undated letter than the one we have?

Question for the Staff: As you will recall, you were requested to give a definitive position from the Staff as to what FEMA would be doing if the Staff proposal were to be followed. Instead of a definitive answer, the Staff told us that after about two weeks after submission of a plan by LILCO to FEMA, the Staff expects "a response" from FEMA. We don't know what a response is. Is that something different than a full FEMA review?

Question for LILCO, so that it won't feel left out of this: In LILCO's April 1st, 1983 answer to the County's request to file reply brief, LILCO states it will have tc provide additional information on what persons or organizations will perform the functions relied on in the LILCO plan and it would do that either by amendment or by a rewritten plan.

We are uncertain as to the schedule that LILCO has in mind; that is, will the additional information in whatever form LILCO chooses to provide it, be ready in

the same time frame as our decision on the legal issues before us, and we told you what that estimated time frame is. Or is LILCO contemplating some filing in an as-yet unspecified future time? We infer there may be the possibility given LILCO's reference to its proposal to a second implementation phase, litigation, all this premised, of course, on whether or not there would be a factual litigation, but we want to know what all the parties have in mind now.

The answer may be moot, depending upon our ruling, but we would like the answer now, in any event.

So if we could receive all those answers, presumably the parties can talk to each other and come back to us all at the same time while we are still on the record this week, we would appreciate it.

If there is a different DPC letter, we would like to get a copy of that when it is practical to do so.

All right. Changing subjects, we have before us Suffolk County's motion to strike portions of the Staff and LILCO proposed findings. The County's motion is dated March 8th and also have received responses from LILCO and the Staff.

The motion is denied. The motion sought to strike references to certain correspondence not in evidence and also to other matters not in evidence, included in the

Staff findings and in LILCO's findings.

Motions to strike, based on evidentiary purposes ususally do not lie against pleadings, such as findings or pleadings of counsel. That is, of course, as distinguished from evidence which would be proposed to be presented at a hearing. Pleadings may be struck for other reasons, such as contemptuous or so-called scandalous content, but not on an evidentiary complaint. Disagreements with respect to what is included in other parties' findings would normally be noted in the sequential responses and that would have been the proper place.

Of course, where the reference complained of appears for the first time and the last reply that would be different, but then the other party could seek leave to reply. Even construing the County's filing as in effect it is disagreement with the findings rather than a motion to strike, we would not rule on it now. That is, if the County followed the proper course and objected to what was in the findings, what we would do is pull it all together in our decision, and in any event, the material would not be stricken to the extent we thought it useful and proper to rely on references, taking into account the County's argument we would do so.

To the extent we thought it was not useful or improper for evidentiary reasons, not to rely on the

references, we would not do so, taking into account the arguments of all parties, and that is the way we treat the papers before us at this time. But for the future, include your arguments in the sequential filings of the files, if it is in the last filing, you can seek leave to file within a reasonable time frame.

I should note that motions to strike would be a particular problem if they were entertained with respect to proposed findings of fact and conclusions of law. Of necessity, these are advocates' briefs espousing a position and, if we embraced motions to strike against them, I can assure you I would, at least I believe motions to strike would be flying back and forth. For example, on our own, we believe there are some distortions of the record in some of the findings in the sense of incomplete citation, and the County is not immune from that; presumably some other party would like to strike some of the County's filings, because the County did not file or create testimony. That's the nature of proposed finding and we will put them all together in our decision rather than have motions to strike in an early stage; so legally and practically, it will not work out to consider it as a motion to strike.

We have another motion before us filed by LILCO on March 30th, 1983, to include an

additional exhibit in the quality assurance-quality control record.

As we read LILCO's papers, we don't understand why this matter was not resolved three months ago when we had assumed all parties would get together. I don't know if the County is going to have an objection or not, but I guess my inquiry is, why hasn't the County acted on it in getting together with the other parties?

This, you may recall, is something that came up at the hearing back in December and we thought we could clear it up early in January.

MR. LANPHER: My understanding, Judge Brenner, my recollection, I should say, from back in December when this came up, that LILCO was going to propose the matters to us during the course of the Staff hearing, present, see if we agreed with the list and then present the list to the Staff witnesses to confirm it on the record. That was not done back then for whatever reason, provided that list at the time of the hearing while the Staff witnesses were on the stand.

Frankly, since then, I personally have had no time to review those documents to see whether those in fact are the ones that the Staff witnesses had reviewed prior to the start of the hearing.

JUDGE BRENNER: Well, they obtained the

stipulation of counsel that, as far as the Staff's witnesses are concerned, those were accurate and we got busy, but it's been three months. I would like to wrap that up while the record is open.

How much more time do you need?

MR. LANPHER: Well, Judge Brenner -- I can have someone go through the record and see if those were the specific ones which people, the Staff people, looked at.

JUDGE BRENNER: Well, I think the question is simpler than that from the County's point of view. Maybe I'm misapprehending the question and that's why I'm surprised it has taken so long. It was mainly the Staff witnesses who would be the ones to say yea or nay that those are the ones they used. We've obtained that. Now, I take it, the only question to make sure that the loop is closed to see in fact those were the ones that were included in the letter that the County provided.

MR. LANPHER: Well, the Staff witnesses know what they looked at. I have no reason to disagree with the Staff witnesses. They looked at what they looked at.

JUDGE BRENNER: All right. We're ready to accept the exhibit on that basis, but if there is something else you surely want to look at it, we'll give you a little more time.

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MR. LANPHER: No.

JUDGE BRENNER: Okay. We can resolve it that way, then. And when it is convenient, we'll have LILCO present that to us, since it was the LILCO exhibit than defer to use that in cross-examination, since this matter first came up we'll seek a number at that time.

MR. EARLEY: We'll get a copy.

JUDGE BRENNER: On the subject of exhibits, I should start out by saying, although I have scanned at quality assurance/quality control findings, I have not read them thoroughly, and perhaps the next answer, my next matter is included in the next findings, when we were last in session on February 24th, and we issued on evidentiary rulings in which portion of the RAT inspections would come into evidence, we had left it that the parties would get it, and I think Mr. Earley stepped forward and volunteered to take the lead on filing a listing of which portions of the RAT inspections were admitted into evidence.

I think that was at transcript page 20,292.

MR. EARLEY: Yes, Judge, I sent a list to Mr. Miller, either the day after or two days after we concluded the RAT cross-examination.

I have not had a response from Mr. Miller as to whether he agreed with the list. When did you send

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it to him, a day or two after?

MR. EARLEY: It was in late February, one of the last days in February.

MR. LANPHER: I'll have to check with Mr. Miller. I don't think there was any disagreement. I just don't know the answer, and I'll check it at a break.

JUDGE BRENNER: Again, we would like to wrap it up this week.

MR. LANPHER: I don't think there is any problem. I expect we get an answer today.

JUDGE BRENNER: All right. We can handle these two matters together and move them each in as separate LILCO exhibits.

With respect to the proposed findings for the quality assurance/control phase, we had asked, and I think this came up a number of times, nevertheless I did not remind the parties at the time we set the precise findings schedule, and maybe that's why we haven't seen it yet. But we discussed the need for the parties jointly to file a list of those decisions which the parties would seek to have included as conditions of any license that may issue arising out of the settlement agreements the parties and, of course, if there are any disagreements as to the conditions, those can be noted, also.

We asked for that, for the benefit and convenience of the parties, since these arise out of the

settlement agreements and, of course, we have our own interest in seeing that settlement agreements which we have approved are properly implemented from the point of view of those parties that worked long and hard to reach those agreements.

Again, if that's included in LILCO findings, I did not see. I glanced through the findings with that in mind.

MR. EARLEY: The list that you just described was not in LILCO's findings. We have been conducting a review of all of the agreements over the past couple of weeks and expect to be getting together with the Staff and the County in the very near future with respect to that.

I would expect we would either be in final agreement, or reach varying views when the final cycle on QA has been complete and get it to the Board.

I have not tendered a list to the County or the Staff yet simply because I haven't finalized it. Mr. Bordenick isn't here, but I remember discussing it with him at one time, and he assured me it would be done.

MR. REIS: The Staff is aware of the need to do that.

JUDGE BRENNER: The LILCO reply findings would be due on April 25th. That would be a convenient date to have it all in. If you need more time for this one item,

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we'll entertain a request, but hopefully no later than a week or two after that. In fact, we'll expect it on April 25th unless we hear differently.

We do not need a formal request for an extension if you advise us by that date that you are going to be filing it later, that will be acceptable to us, but make sure the date you give us is only a few weeks later, and that will give you all more time to look at that after you've finished your burden of the main findings, and reply.

The next subject is the Teledyne report. Today is April 5th. What's the latest word on the schedule? We have not seen the report. I don't know if it's out or not.

MR. ELLIS: Judge Brenner, it is not out yet, and we do not have any later information on when it will be available.

JUDGE BRENNER: Okay. As soon as you know something, other than what you just told me, you will let us know?

MR. ELLIS: Yes, sir.

JUDGE BRENNER: We have nothing else unrelated to the reopened hearing. If none of the parties will turn to the motion to strike portions of the County's testimony --

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MR. ELLIS: Judge Brenner, we have one other item unrelated.

Are we using these today?

JUDGE BRENNER: Let's go off the record.

MR. ELLIS: Judge Brenner, the unrelated item is, the Company has announced that the fuel load date is August of '83. The construction schedules and critical path testing schedules have not been changed. The Company is attempting to maintain those schedules, and if it is successful in maintaining those schedules, the plant could be ready for fuel load prior to August.

JUDGE BRENNER: Maybe I'll understand it when I read the transcript.

Can you say that again?

MR. ELLIS: Yes, sir.

JUDGE BRENNER: Let me tell you what I don't understand.

MR. ELLIS: All right.

JUDGE BRENNER: I thought you said the fuel load date would be August '83, and the last thing you said, maybe earlier.

MR. ELLIS: That's the estimate, but there is hope it can be done prior to that time, because it depends on the construction, testing schedules.

They are not changing those schedules. The

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question is whether they can maintain those schedules.

JUDGE BRENNER: It might be useful for us to receive periodic, perhaps monthly reports on the LILCO estimated schedule, and it will be just that, LILCO's estimated schedule, for what it's worth.

Perhaps starting on or about May 1st and then on or about the first of each succeeding month unless circumstances have changed between reports which LILCO feels the parties and the Board should be apprised of, and no explanation is required, just fairly succinct statements as to what the schedule is.

Do any of the parties have any other matters?

(No response)

JUDGE BRENNER: All right. We have before us two motions to strike portions of Suffolk County's testimony in this reopened proceeding, LILCO's motion and the Staff's motion each dated March 30th. We also have Suffolk County's response dated yesterday, April 4th, given the fact we had an additional day or so. We believe we have the arguments very well before us, and fairly lengthy motions and comprehensive response, and we are prepared to rule, unless the parties feel obliged to comment on something in the written filings they did not have the opportunity to comment on due to the press of time.

MR. EARLEY: Judge, I do have a couple of comments in response to the County's reply to the motion to strike.

I'll try and keep it brief.

I think the County's response exhibits a fundamental misunderstanding of the scope and the purpose of the reopened portion of SC-7B. Throughout, I think the County argues that any matter that's tangentially related to matters that are raised by Mr. Conran in his affidavit are fair game for supplemental testimony.

I think, as we stated in our motion to strike, we think that that type of assumption is incorrect, that the Board had contemplated focused testimony on new material, and, in fact, there was a discussion at the time the affidavit was admitted into evidence that the County had objected to some of the LILCO's comments to the effect that we were concerned that it would not be focused, and the County made assurances that it would be focused strictly on new matters raised in the affidavit.

We think the Board recognized they were unique circumstances associated with this particular affidavit. A Staff witness who had represented official Staff position had changed his personal views on the subject.

That unique circumstance required the

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Staff to come in and somehow reaffirm it's official position for the record. I think there was some discussion that there was various ways that that could have been done. It could have been done by stipulation that Mr. Conran's present views represented Staff position, and that his affidavit represented his personal position, or, as the Board finally ruled, it would be done by the Staff submitting supplemental testimony.

Given that unique set of circumstances, I think the appropriate scope of the testimony, I think the scope that the Board contemplated, was that if the affidavit raised new facts as opposed to just the witness' opinion and view of the facts that were already stated in the record, if it did raise new facts, then the County should be allowed to address those new facts.

Second, in reply, if the Staff had raised new facts or new matters, in addition to just reiterating its existing position, those new facts or new matters would have been the appropriate subject of new testimony.

Third, if someone had relied on Mr. Conran's opinion in writing their initial testimony, and because of the cycle of filing testimony originally, that was not the case. The County filed first, so that they could not have been relying on his opinion and views of the facts when they filed their testimony, but if that had been the

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case, then that possibly might have raised issues appropriately addressed in the supplemental testimony.

Given, I think, that view of the appropriate scope of this supplemental testimony, as we stated, very little in the County's testimony seems appropriate, and to flesh out some of the arguments that we made in our motion to strike, I think you can go through all of the portions that we noted had been previously discussed and cite various portions of the record where they are amply covered. In almost the same terms, for example, we mention --

JUDGE BRENNER: Mr. Earley, I apologize.

If I get one more flash in my face, you're leaving. Please sit down.

MR. EARLEY: I think a couple of examples highlighted that, we noted in our motion to strike, the discussion of the adequacy or inadequacy of the standard review plan. Those matters were discussed in Suffolk County finding 7B-65, 7B-79 through 83 and they were also discussed at Suffolk County's initial testimony in 7B on page 61 in essentially the same terms as they are discussed in the supplemental testimony.

I think another example involves discussion of NUREG CR-1321, which is a discussion of the Phase 1 systems interaction study.

I remember during the initial cross-examination of the County panel there was a discussion concerning the conclusions that were reached in the Phase 1 study and the results of the study at the Watts Power Plant and if that supplemental testimony is admitted, we are going through the same cross-examination and similar discussions. It just doesn't add anything to the record and I don't think the Board contemplated that, and the County has used the affidavit to supplement arguments previously made.

Without going through -- I won't go through all of the examples but I think in our motion to strike we cite 15 to 16 or so instances where we think there is repretition and the matters have been amply covered in the record and we've gone through and I don't need to

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burden the record now by giving the exact page cites, but you can find pages in initial testimony and findings of fact that were submitted by all parties covering those particular issues and we'll just be replowing old ground.

So I think our response to the County's response is essentially that they have misconstrued the appropriate scope of the testimony, and that the Board did anticipate narrowly focusing on new matters and the impact of Mr. Conran's change of opinion and not giving everyone an opportunity to reargue the case and in fact when LILCO reviewed the Staff's testimony and Mr. Conran's affidavit, we concluded that there was nothing additional that LILCO needed to say; that the record had been amply covered.

MR. RAWSON: I have a few brief comments, as well. I don't know whether the Board is --

JUDGE BRENNER: Remember, we have very thoroughly, I assure you, gone through the briefs, so if something is contained in the last filing of the County's which you did not have a chance to respond, we'll hear you; but as Mr. Earley recognized, you don't have to restate your brief.

MR. RAWSON: The Staff found itself in agreement with all but one of the arguments raised by LILCO. We agreed with the comments just made by

Mr. Earley. I did want to raise with the Board the question of the area in which we disagree; that is on the question of progress on A-17-B and the matter I recall. Concerns have been expressed in the past that we were, will be less than fully clear about our position in this matter and it appeared to us a little more clarity might help the Board on ruling on motion to strike.

The Staff position which we have asserted and continue to assert is that there are -- there are two points to be made with respect to A-17. The first is that it is in fact a confirmatory program, that present criteria are adequate, if not been shown to be inadequate and that progress, therefore, does not matter to the licensing of the Shoreham Plant. However, we also believe and have also asserted that progress is being made. We believe adequate progress is being made. These are not mutually exclusive propositions, that we believe we are entitled to rely on both and we do rely on both. For that reason, however, we think it would be inappropriate to strike these portions of the County's testimony dealing with the progress on A-17 for that reason.

We do believe, however, that all of this same testimony is of the -- was or could and should have been raised earlier and should be struck for that independent reason.

The second point I wanted to make was with respect to the comments from the February 18th meeting that have been cited and quoted from the County's -- in the County's testimony.

The County made the position, took the position in its filing yesterday that anything stated by the Staff in this meeting is admissible, necessarily, as an admission --

JUDGE BRENNER: 801(d)2.

MR. RAWSON: I'm sorry.

JUDGE BRENNER: You mean Federal Rule 801(d)2?

MR. RAWSON: Yes, sir.

It is not at all clear to the Staff, either the law or public policy requires that these types of comments be treated as admissions. You can quickly read any absurd situation which any statement by any employee of the Nuclear Regulatory Commission considered to be admitting things by the Commission.

We think it would be public policy for these sorts of things to be treated in general as admission.

JUDGE BRENNER: They are not talking about binding the Commission, binding the Staff.

MR. RAWSON: Yes, sir, in terms of the public policy, this is the instance cited for

examples of the give and take of the meeting in which the Staff is trying to obtain information. If it is known beforehand that each and every statement, each and every question which is asked by Staff members at such meetings is going to be a matter raised in litigation, it may be a chill on that process of obtaining information.

In addition --

JUDGE BRENNER: Why didn't you move to strike all the statements?

MR. RAWSON: If I did, it was inadvertent, Judge. There was no intention not to strike all of the statements by the Staff members.

JUDGE BRENNER: Or by anybody.

There are LILCO statements referred to.

MR. RAWSON: We were trying to protect our interests, Judge; we were interested in the Staff comments, particularly.

JUDGE BRENNER: All right.

MR. RAWSON: The other point I would make may be a narrow legal point, but worth concerting, as well, in order for a statement, out-of-court statement by a party to be considered an admission, itis necessary that it be proffered against the party in question, against the party that spoke it and it seemed to me from the context in which these things were raised and the

County's testimony, that the statements by Staff members were not being proffered against the Staff, but rather were being proffered against LILCO.

Clearly, these matters are hearsay and not admissions as it relates to LILCO.

That's all I have, Judge. Thank you.

JUDGE BRENNER: Ms. Letsche.

MS. LETSCHE: Judge Brenner, I think our position was laid out in some detail in our opposition, and I don't really have any comments to make on what Mr. Earley and Mr. Rawson have just said, other than to note we disagree with some of the characterizations of the County's testimony and what the County had indicated prior to filing its testimony it intended to address in that testimony, but that's all set forth in our opposition, unless there is something in particularl you would like me to address of Mr. Earley or Mr. Rawson's comments, I don't see the need to say anything further. I think we have it all.

JUDGE BRENNER: I should start out by thanking the parties for the thoroughness of the filings. It did give the three of us a full opportunity to discuss things by having it before us in good fashion. Don't think to mean that the parties' extensive motions to strike as a general rule but given the fact you felt the need to file the

motions, we appreciated the full supposition of the bases which were presented.

We are going to try to rule without going into all the detail because if we did, it would take a long time. I don't want you to assume from the relative brevity of our ruling that we did not thoroughly dissect each and every part cited in the motions, because we did.

In general, we think the motions to strike are overbroad. We recognize that the arguments offered by LILCO and the Staff make sense, but by the same token, as to the description of the scope of the reopened proceeding, by the same token, some of what the County said in its response makes sense, also. So at the same time you are both right and you're both wrong, and we tried to combine them and apply them to some particular portions as you will see in a moment.

The fundamental problem that we all face stems from something we said at the time we granted the motion to reopen -- motions to reopen, I should remind the parties, both the Staff and the County were in favor of reopening and that it is difficult to separate facts from opinion with respect to an expert witness and it was particularly difficult in coursing through Mr. Conran's affidavit because he relies on old

material and presents as his thesis the facts given some new occurrences, as an expert he views the old material in a new light, in the context of the new occurrences. That does not mean, however, that anything tangentially related to the subject is fair game again but we have had a lengthy litigation, so Mr. Earley is right about that.

On the other hand, just because something is old does not mean that we can exclude it. We'll give you a prime example of each of those ends of the spectrum in a moment.

So, to some extent, the motions to strike, although I'm sure not intended that way, perhaps understandably were consistent with LILCO's initial views that there was no reason to reopen and some of the same arguments, although couched somewhat differently, were those that we rejected in ruling on our reopening; that is how much of Mr. Conran is saying is really new information as distinguished from arguments about all the facts which could be presented in form other than testimony and we ruled that it was sufficient overlap, that we would reopen the record and hear what Mr. Conran had to say. He was an important member of the Staff's panel initially. He has expertise in the area and he knows what has been going on with respect to the Staff work

and he will be of assistance to us in understanding that, just as the other witnesses being presented will be.

The area of the history of the unresolved safety issue is an example of something that we are going to leave in because we are just very frankly incapable of separating out the overlap between new facts and old facts being viewed in a new light.

Mr. Conran, as part of his thesis, believes it is important to look at the history in the new light again. So even if we were to strike that portion, we'd be talking about what occurred before the prior litigation; that is before last spring in light of what happened after.

The Staff witnesses themselves will be talking about that subject. They do a lot more succinctly and perhaps that lends support for Mr. Rawson's statement that it is not irrelevant but there is no need to plow over again; however, that by the same token that succinctness in the same testimony can also be criticized as conclusory statements without putting forth very extensive bases. We did go back over the record on the unresolved safety issue and we think in light of what Conran is now saying, some elucidation might be in order. To the extent cross-exercises are already in the record, then they don't have to ask very much about it.

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We had opined on the time of the motion to ruling -- we had graver doubts as to how important progress on the unresolved safety issue is from the point of view of supporting the Staff's, and presumably, LILCO's arguments that we can make the North Anna unresolved safety issue findings.

We still have those doubts, but the Staff, as its right, has persisted on relying on that progress and in their notion that it is only confirmatory of the other work that is taking place, so long as the Staff is relying on that, and as we took care to research and to note at the time of the ruling on our motion to reopen, the Staff findings rely on that. It is not clear how necessary the reliance is in light of other things the Staff relies on, but we weren't going to separate it if the Staff or all the parties had been able to reach a stipulation that they would not rely on the progress of the unresolved safety issue, then we would have been happy to put it aside.

But no such stipulation has been reached presumably because the Staff at least, as I say, has its right and wants to continue to rely on it.

In addition, maybe you are better than we are, but we couldn't separate out the extent to which the description of the history of the unresolved safety issue

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was in there solely for schedulatory reasons, as distinguished from rebuttal of the Staff, a notion that the results of the work periodically and to date has only been confirmatory in nature, and that their results in the future can be reasonably assured to be just that, so we couldn't separate out those two concepts that the Staff is clearly in part relying on the confirmatory aspects.

If it helps, I can give you a hint. Unless you have something miraculous in the set schedule somewhere in the testimony we haven't seen, don't spend a lot of time that the predicted schedule is going to be met, because if you are depending on scheduling being met in your time frame, I don't know how you are going to convince us of that. Just give them the normal course of events and not necessarily a particular comment on unresolved safety issue A-17. But we recognize that is not the Staff's sole argument.

We have difficulty recognizing the extent to which that is part of the Staff's argument.

So, the large block, and I don't have the pages right in front of me on the unresolved safety issues, starting at page 3, is not going to be struck for that reason, but we recognize that the litigated arguments in support of striking it, but we just could not separate

out new fact from opinion and old fact in light of the new facts, expert opinion.

Contrasted with that is the large section D from pages 32 to 37 of the County's findings entitled "Staff Reliance on the Standing Review Plan and Regulatory Guides," I guess, is not justified, if I remember the title correctly. Yes.

We are going to strike that portion, that is old ground which parties have a full opportunity to litigate. We are not going into a relation of what the Staff's review has been. It was to the contention and was explored fully before. It is true there is a reference in the Staff testimony to the fact they still believe their review is okay, but by that reference, that does not suddenly introduce the subject for re-litigation.

They are not providing, the Staff is not providing any new information on it. They are simply reiterating the fact that the record exists on it; so that is not necessary to relitigate, given Mr. Conran's affidavit and the Staff supplemental testimony.

Other aspects, part of the testimony which we are not striking, relate to the -- I guess we can call it an agreement between LILCO and the Staff on FSAR amendment and why the Staff believes it solves its problem.

That was new matter at the time we stated at

the time of the motion to open we wanted to hear about that. The Staff itself properly included reference to that in its testimony, and we are not going to strike the County's testimony in discussing it, so quite a few of the portions which were included in the motion to strike relate to that new matter, and it is new matter which we would take cognizance of, and want to hear about it from the Staff, and want to hear about it from the Staff, the County is entitled to give us its views on it.

It means obviously the County witnesses could not testify to it almost a year ago before the new events occurred.

Other miscellaneous small portions of the County's testimony are included in LILCO's motion to strike on the ground that it is mere agreement with Mr. Conran's testimony without adding anything. It is true we admonished the County not to file testimony which merely reiteration on an accumulative basis which was in Mr. Conran's affidavit.

I think all parties agree that type of testimony is not really testimony, but is in the nature of proposed findings, and can be so filed.

The portions thatthe County has in its testimony, however, are simply very small sections which

set up or put in context the County's views in support, in some cases of Mr. Conran's view. The County is entitled to do that.

Presumably, the whole purpose of additional County testimony is to give its own reasons supporting Mr. Conran's reasons where they agree to the extent those reasons are the County's views and not cumulative, that's acceptable.

To the extent there are some instructory paragraphs which relate merely what Mr. Conran said, they are brief and give useful context to the County's comments. So we are disagreeing with one of the Staff's essential premises that it is impermissible for the County to say, here are our own reasons why we agree.

What we did not want is the County simply saying, we disagree with Mr. Conran, and taking many pages to do that, and not presenting any independent reasons, and that is not what the County has done.

We are going to strike the portions of the County's testimony which relate to the incident that the Salem Power Plant, the particular portions -- initially I hope the County is noting this so at the time the testimony is submitted, it can be appropriately marked up for the copy being bound into the transcript, starting at page 40, line 12, to page 41, line 9, in the middle of that line, up until that portion where note 46

j-4-6

is noted, we would strike that. It is too collateral an inquiry in order to establish the importance and relevance of what occurred at Salem, and this is -- this was our preliminary view, and it is highlighted by the County's response.

The County states they only want to use it for a limited purpose of showing what can occur with respect to incorrect classification of system. We are not ruling it's totally irrelevant; however, its relevance, its pertinence, its importance, are much too tangential to embark into a whole collateral issue.

The County says just accept what we say; it's a proper example of it. It would be a limited citation, but permitting that inclusion would invite the full inquiry and in fact the County has done what it criticized the Staff for doing. That is, just putting in a conclusory statement and then taking the position that there is nothing really there to cross-examine.

The County had, we would add, full opportunity with respect to citing examples at the Shoreham Plant which they believe supported the view that systems or subsystems were classified improperly, and although it's been a long time, I don't think I have to remind the parties here the extensive litigation we had on that last spring. So we would strike that portion cited.

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We would strike the reference to the ACRS letter at page 14, line 18, to page 15, line 11. We agree that in light of the case law cited by LILCO, which we have reviewed, that is the Arkansas Power and Light ALAB 94-AEC-25 at page 32, that's a 1973 case, and Turner is cited in the Vermont Yankee case, ALAB 2178-AEC-61 at page 75, 1975, that it is impermissible to cite or use ACRS letters for the truth of the matter asserted, the policy reason is that the ACRS, as a coliegial body, are not available for cross-examination so the conclusions cannot be tested.

The County makes the best position argument for the use of the letter. The County states that they recognize they can't use the letter for the truth of the matter asserted, rather, they are just saying that the ACRS has criticized the progress on A-17. It sounds good, but once you analyzed what one has to assume to inquire into that, you have to assume the correctness of the conclusory statement, and that involves an inquiry into what the ACRS meant, what the particular conditions were, what they had in mind. And it is in reality an inquiry into the context of the truth of the matter asserted which becomes an unreliable hearsay statement ultimately, because we can't bring the ACRS in to ask them about it. So that part is struck.

j-5-1

We are not striking for the ACRS argument reason the portion relating to the ACRS transcript. We are going to strike it for hearsay reasons, as I'll get to in a moment.

MS. LETSCHE: Judge Brenner, could you repeat what it is you are striking?

JUDGE BRENNER: I hope I have it correct, and you tell me if you think I -- it is meant to include all the references to the ACRS letter, page 14, line 18, to page 15, line 11.

MR. EARLEY: Judge Brenner, I think that should be line 17, starting with a paragraph at the bottom of the page, "The foregoing progress."

JUDGE BRENNER: Did I say -- what did I say, line 18?

MR. EARLEY: Line 18.

JUDGE BRENNER: I miscounted. That's the portion beginning with "The foregoing progress." I suppose it would be in the parties' interest to number the lines and testimony to make it easier for the portions to be identified. I apologize for the wrong line.

Where I intended to cut it off would be "toward resolution," and, of course, in all of these portions that we are striking, any notes included within them are also struck.

J-5-2

We are going to grant the Staff's hearsay objection and strike the material. It is certainly correct, as the County pointed out, that the mere fact that something is hearsay is not a ground for striking it in our proceeding, and that's the Duke Power case, the McGuire Plant. I think the County had an incorrect citation to it.

The correct is 15 NRC-453, and the relevant portions are at 476 to 777. It's a 1982 case. That is correct. But going beyond that, we do not believe statements made at a meeting, notwithstanding the fact that the statements were transcribed, are sufficiently reliable and probative to admit into a judicial proceeding for the truth of the matter asserted. They are not being offered for the fact that the statements were said; they are being offered for the substance of the statements.

It's not a question of the reliability of the speakers, and we could come up with reasons as to why the particular context of the meeting, when support of the fact that speakers at that type of meeting, given the context of this proceeding would not have made statements that they didn't believe or didn't think to be correct. It's the same type of problem we had with the auditor's reports.

We don't have sufficient assurance that we

j-5-3

understand fully what the speakers meant by them to simply admit them into evidence. It is true that Staff witnesses will be here who can address the matters. In one case the speaker himself, and in another case, presumably, somebody who was a sufficient participant to know what Mr. Haas meant, but that would be the reverse process of having admitted the hearsay statement, and then asking the witness whether it is -- another witness whether it is correct or not.

The County is free to ask the Staff witnesses what their present views are of these matters. Those views are in the testimony, and you can ask them about the subject matter of the meeting, that is, the agreement between the Staff and LILCO.

The way to proceed isn't to ask them what occurred at the meeting -- "Did you say this at the meeting?" -- but you can ask them their views. To the extent you think you are getting a different answer than what occurred at the meeting, you can ask them about it in the sense of a prior and inconsistent statement, and they will be available to explain it.

But oral statements at meetings are not sufficiently, in general are not sufficiently reliable to admit into proceedings.

For the same reason, let me give you those

j-5-4

particular portions, they are cited at page 2 of the attachment to the Staff's motion to strike, and it's page 25, the middle of the second sentence in the last paragraph, starting with "and the comment by" and concluding at page 26 with the end of the quotation, and also, page 29, the second sentence in the first paragraph, starting with "Both Mr. Haass," -- H-a-a-s-s -- and ending on page 30 with the end of the quotation.

Now, I agree with the County, the Staff would have moved to strike more, but they didn't, and we are ruling on the motions before us, not going out and soliciting new motions.

With respect to the ACRS transcript being cited, we have the same hearsay problem. It's not a matter of not believing that the witnesses said what they said; it is on the transcript. It is a matter of not fully understanding what it intended, and we come to learn in this litigation that broad terms like "dependency analyses" mean different things to different people.

There are witnesses here -- we've actually had testimony on the Indian Point work to the extent it may have changed, or new developments occurred. They are discussed, as I recall, in Mr. Conran's affidavit.

There are witnesses here whom the County

can ask very directly about that work. I don't think there is anything new that hasn't been asked on it.

So we'll strike the ACRS transcript references, and I have it as page 12, line 17 through the next line, line 18, and presumably, also, note 24 would also be deleted.

That concludes our ruling. So, as you can see, although we have not reiterated them in large part, we have denied the motions to strike with the exceptions of the portions we just ruled upon.

We did have one other subject that I meant to touch on, and Judge Morris reminded me, unrelated to the reopening. We have received the executed agreement with respect to quality assurance Contingent 13-D which involves the OQA staffing.

We were informed, also, that agreement has been reached on Contingent 13-A regarding the procedures, and that's why we have not scheduled that issue for a litigation.

We would like to receive that agreement either in final draft, or preferably, if possible, fully executed while we still have an open record, and that is going to be very soon. So we would like to receive that this week, in fact, if we can.

We will hold off ruling on the agreement on

j-5-6

13-D; we have no problem with it, but we want to consider it as part of 13-A also at the same time we are considering 13-A.

MR. ELLIS: Judge Brenner, on the procedures, I think Mr. Dynner is on cross-examination --

JUDGE BRENNER: He was coming back today in the last conference call.

MR. ELLIS: We have sent to Mr. Dynner and to the County's consultants the revised procedures and they should have them this week. There is one other procedure that we have yet to send them that they would need to see before they will b e done, and we will try to get that done this week.

JUDGE BRENNER: Well, I thought we could get the agreement, contemplating what work was still left to do without having to await the full review of the procedure.

Maybe that's wrong. In asking for the --

MR. ELLIS: I think there is, as I understand it, there is agreement among the consultants as to what was to be done, and it has been done in large measure except for one procedure that I have yet to obtain and send, so I think what was agreed to has been done.

It remains for the County consultants to review what has been done to see that they concur.

JUDGE BRENNER: Well, part of our problem --

j-5-7

and this is not a matter of form. We had heretofore only had a fairly vague oral description of what the agreement is on 13-A. I want to see what it is in writing. It does not -- it did not occur to us all the work had to be done on reviewing all the procedures before we received the agreement, acknowledging what has b een done and setting forth what is left to be done. And there was the possibility of the parties asking us to do something. And I don't know if that is still pending or not. But in any event, we want to see at least a proposed agreement before us this week in writing, so we understand what the nature of the agreement is.

As I said, it is not a matter of form. We have not really heard enough yet, and rather than hear it orally, I think the best approach now is to get the draft written agreement. We would like to get it this week. So come back to us and tell us what the problem is in doing that.

MR. ELLIS: I'll consult with Mr. Dynner on that.

JUDGE BRENNER: We still want to do that on the record, and we don't want to assume we are going to be here next week. If it turns out to be the case, we will have a little more flexibility, but not much, hopefully.

j-5-8

Turning back to the subject of the reopened proceeding, Judge Morris had a question of you, Mr. Reis.

JUDGE MORRIS: It is a rather brief comment, Mr. Reis. We received your March 23rd letter, which brought to the Board's attention the Commission's March 8th, '83, policy statement on safety goals for the operation of nuclear power plants, and particularly to Section 4 thereof.

MR. REIS: Yes, sir.

JUDGE MORRIS: Of course, we are fully awwre of the Commissional policy statement, and your letter leaves us a little bewildered as to whether there was something special we should have taken note of, should take note of. I don't really require an answer, but I did want to drop that comment, that it really didn't give us much guidance.

MR. REIS: We didn't intend to argue the relevance now. We just wanted to make sure that the Board had before it and was considering this matter because we thought it may be interepreted to be relevant. We didn't think particularly, in some of the matters litigated before us, PRA and AUC's --

JUDGE MORRIS: You can rest assured we are fully aware of it and we will consider it.

MR. REIS: Thank you.

JUDGE BRENNER: I agree, we are aware of it, but I don't want to mislead you; we are not going to do anything on the basis which simply says in connection with contention 17-B, take a look at it. I want you to know that. I want you to know that, also.

We have nothing else except a brief preliminary discussion on the schedule for this week. We are concerned that at different times we keep hearing from the County about problems with respect to certain of its witnesses, which problems are inconsistent, that is on the one hand the County wanted to move the litigation to this later in the week and we discussed that and ruled and then a week later we hear that one of its witnesses has a problem at the end of the week. We have the letter. We understand that from that the letter that Mr. Goldsmith will not be available on Friday.

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We do not consider that a motion before us and we are not excusing him unless you want to make a motion and tell us why his reasons are more important than our reasons. However, as always, with all witnesses, to the extent there is flexibility, we assume the parties and of course the Board will attempt to accommodate schedules, but if there is not flexibility we are not going to, unless we have a particular motion, and the nuts and bolts of what I'm saying are, we are not going to come back next week if the only reason we have to come back is Mr. Goldsmith will not be here on Friday. If we accommodate his schedule either because we will complete with him prior to Friday or coming back next week anyway and can have other witnesses available on Friday, that's fine. But I'm sure the County didn't expect us to act on the basis of the information it provided in the letter; namely, just that Mr. Goldsmith won't be available on Friday. So we are not going to. He is not excused. To the extent you can work it, that's fine. If you need him excused, you better file a motion in enough time to do something about it, or you can do it orally, of course. Where there is flexibility, we'll all try to accommodate him, but we don't know now that there will be flexibility.

The next order of business, as far as we're

concerned, would be to have Mr. Conran's testimony admitted and begin the cross-examination. We've received the cross-plans.

Has the Staff communicated to the other parties that we know from its cross-plan with respect to Mr. Conran?

MR. RAWSON: Yes, sir, I have.

JUDGE BRENNER: Including the County?

MR. RAWSON: Yes, sir.

What we are talking about is the fact that the Staff has stated it has no cross-examination of Mr. Conran. We expected the Staff to be the first cross-examiner. So now LILCO will be the -- we'll begin with LILCO's cross-examination, to be followed by the County.

After that, we will proceed -- the parties have presented us no different order than the order we suggested in the conference call; so I assume that's the order, that is after Mr. Conran we'll proceed with the Staff's witnesses, and then after the Staff's witnesses, with the County's witnesses as we said in the extent we have flexibility we can divide up the sections of the County's testimony if the County wants to do so, we'll accommodate its witnesses. Whatever you work out is perfectly okay with us, as long as we have the flexibility of this week to do it.

MR. ELLIS: Judge Brenner, just a slight clarification. It was LILCO's view that the Staff should go last, but we could not win approval for that view with everyone. But it is still our view that appropriately as it is done in other aspects of this hearing, the Staff should go last.

JUDGE BRENNER: This one is a little different. In fact, it is the Staff's testimony that is the threshhold, if you will, for the motion to reopen, starting with Mr. Conran, and the other Staff's witnesses' views in light of Mr. Conran's testimony and the Staff's views of the proposed SAR schedule that solves all the world's problems for them, particularly since there are no more witnesses. I'm not criticizing that. I'm just noting that, that the Staff, possibly LILCO, but as compared to the County, the Staff is in the best position of explaining that and not surprisingly, the County's testimony is teed-off those now current views over the Staff, and I think saying -- I'm just repeating the reasons for which we had the sequence of filing of the Staff filing testimony first, and I think LILCO agrees that -- and the same reasons extended to the present situation would apply. We didn't have a strong feeling and if the parties had agreed differently, that would be okay. But in the absence of agreement, we

think this letter makes the most sense.

Can the Staff assist properly in putting Mr. Conran's testimony in?

MR. RAWSON: Yes, sir.

I just want to advise you that if we receive the different professional opinion, which is not proposed to be put in evidence, but in the course of doing that, we saw the corrections of typographical errors and other minor corrections that Mr. Conran made, so we can hopefully have a copy of his testimony being put in which has already corrected all of those without having to go through them because there are quite a number of them.

MR. RAWSON: That is our intention, although we have not quite so far to produce the affidavit which is appended as an appendix to the DEP in evidence here.

There are some minor additional factual materials in there. We discussed this matter with Mr. Conran and thought it would be preferable simply to offer a typographically corrected copy of his February 9th executed affidavit.

JUDGE BRENNER: Fine, I guess. I meant all the changes and I think any of them were of a momumental, substantive importance. I think they were all in the nature of clarifying language, a little beyond typos in

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some cases, but just clarifying language.

MR. RAWSON: If that's the preference of the Board, we have no objection to offering Exhibit A. The witness may have a preference himself.

JUDGE BRENNER: Mr. Conran, let's allow you to say something, since you've been -- you've previously been sworn so we won't have to swear you in again.

Whereupon,

JAMES H. CONRAN

was recalled as a witness, and having been previously duly sworn, was examined and testified further as follows:

JUDGE BRENNER: It's fine with us, unless the parties have an objection, to simply make all the corrections and changes you made to the affidavit in the different professional opinion and admit that version. It simply clarifies the language. If there is a substantive change in there I missed it.

MR. ELLIS: Judge Brenner, we did not receive that until Friday and we have not had an opportunity. In fact, I was unaware there was any significant changes in the two.

JUDGE BRENNER: There are no significant changes. They are minor language changes.

MR. ELLIS: Let me be more precise. I was

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unaware of any changes.

JUDGE BRENNER: Mr. Conran made it easy; he marked up the margin and you can see where the changes are.

MR. ELLIS: I simply used my version of the affidavit that I had, once knowing that it was the attachment.

JUDGE BRENNER: Do you have the other copy of the affidavit also available to you, Mr. Ellis, that is the -- I don't want to go through all the changes on the record. I simply want to admit the affidavit as changed, since it was available to all of us.

MR. ELLIS: Well, we have --

JUDGE BRENNER: Do you have the different professional opinion?

MR. ELLIS: Yes, we do. If you look at the appendix A to that, it is the same as the affidavit previously filed, with the exception of those that are marked marginally. And does the Staff have a marked-up copy so that Mr. Ellis could look and see exactly the changes?

JUDGE BRENNER: That is what I did for myself and not all the parties would do it and I'll be glad to give you my marked-up copy, which graphically shows precisely what the changes are, except that I have some

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other notes on the copy that I don't want you to see.

MR. RAWSON: Judge, I'm afraid I don't. I was dealing with Mr. Conran's bars being sufficient for my purposes.

JUDGE BRENNER: Let's admit the corrected version. We are going to break for lunch soon. I think it will not take you long to compare the two, Mr. Ellis, and if you disagree with the fact that none of the changes are substantive, then you can come back and tell us why you are prejudiced by some last-minute changes, and we'll give you an opportunity to mark-up your copy so you can graphically see what the changes are.

MR. ELLIS: Thank you.

JUDGE BRENNER: As I said, because of the marginal marks, at least you know what lines to look at.

Why don't we proceed and get that version into evidence?

MR. ELLIS: I just have one additional comment before we begin with that.

Mr. Conran is, of course, being presented in accordance with the motions to reopen and the Board's order reopening the record. We are in somewhat of an unusual procedural posture as we have recognized from the beginning of this matter. Separate counsel has assisted Mr. Conran in the procedural aspects of his affidavit presentation and the presentation of that to the Board. Mr. Conran understands that counsel here today is here as counsel for the Staff, and he understands this and

has not found it necessary to have separate personal counsel. We do not anticipate problems, neither does Mr. Conran anticipate problems with regard to what the Staff being here and not representing Mr. Conran per se, especially in light of our decision concerning cross-examination. I simply wanted to note that for the record.

JUDGE BRENNER: I don't see any problem, either. Particularly since there are parties here with differing views. Whatever the Board -- we might have felt more eager to jump in and object to questions if there was no party that agreed with Mr. Conran. I am not talking about protecting him. It's a notion of what's relevant and material or irrelevant and immaterial and that type of thing and I don't think we are going to have a problem with that, either, if Mr. Conran doesn't think we are going to have a problem, we don't.

DIRECT EXAMINATION

BY MR. RAWSON:

Q. Do you have before you, Mr. Conran, a copy of your affidavit dated February 9, 1973, as corrected, in Appendix -- with notation Appendix A in the right-hand corner?

A. Yes, I do.

Q. That document consists of 33 pages; is that correct?

A. That's correct.

Q. Is that affidavit true and correct to the best of your knowledge, and do you adopt it as your testimony in this proceeding?

A. It is true and correct. I adopt it as my testimony.

MR. RAWSON: Judge Brenner, Mr. Conran is available for cross-examination.

JUDGE BRENNER: All right.

One other minor thing: Do you still have the copy you are going to get?

MR. RAWSON: I have.

JUDGE BRENNER: On page 20, what used to be note 16 and it is now note 17, the correct date for that letter from Dircks to Shewmon which has previously been put in evidence as a presentation to the Staff's testimony last spring is February 12, 1982?

MR. RAWSON: Yes, sir. There were some minor typographical corrections of that nature and which we have already given to the reporter and which we will --

JUDGE BRENNER: That wasn't one of the changes previously supplied to us.

MR. RAWSON: That's one of the comments, as

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I was telling the Board this morning.

JUDGE BRENNER: I'm confused. You have changes over and above the ones we already were told about.

MR. RAWSON: Yes, sir, I have given the reporter the copy of the February 9th affidavit in which there are three changes of precisely that nature, an incorrect --

JUDGE BRENNER: I guess you better give us the other changes, then. I assumed in my statements before, we had all the changes you wanted to make by simply looking at Appendix A to the different professional opinion.

MR. RAWSON: I apologize for the misunderstanding, Judge.

On the first page -- page 2 of the -- it's page 1, not the cover page, but page 1, which begins with the heading, "Purpose of Affidavit." In the footnote at the bottom there is a number dropped from the citation that should be NRC 245.

THE WITNESS: Page 12?

MR. RAWSON: At page 12 in footnote 13, the date of 1/18/82 should be 1/8/82.

Your Honor has already mentioned the change on page 20 in which the date 2/21/82 should be 2/12/82.

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JUDGE BRENNER: All right. Maybe we could give Mr. Ellis a hand. I think those largest changes in number of words occurs in the change on page 13 and my own impression is that is not a substantive change, but is merely a different way of expressing the same point; but that's one that you might disagree with, Mr. Ellis. I think it's consistent with what was in the affidavit before, but other than that one, all the other changes truly are just minor changes and minor additions. That's one you may want to look at over lunch.

MR. ELLIS: Thank you.

I note also footnote 14 is --

JUDGE BRENNER: It's got another reference.

MR. ELLIS: Brand new.

JUDGE BRENNER: I'm sorry. 14.

MR. ELLIS: Brand new.

JUDGE BRENNER: Yes, but you decided how important it is. Needless to say, mere references in testimony are not in evidence just because they are in evidence. What they put in evidence is the testimony.

All right, we will, as identified and as corrected, we will bind in the affidavit of James H. Conran and admit into evidence as if read.

(The Affidavit of James H. Conran, Appendix A, follows.)

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,
Unit 1)

Docket No. 50-322(OL)

.....

AFFIDAVIT OF JAMES H. CONRAN

I, James H. Conran, being duly sworn, depose and state that:

QUALIFICATION OF WITNESS

1. I am an employee of the U. S. Nuclear Regulatory Commission (NRC). My present position is Senior Systems Engineer, Reliability and Risk Assessment Branch, Division of Safety Technology within the Office of Nuclear Reactor Regulation. A copy of my professional qualifications is bound into the transcript of the Shoreham Hearing at p. 6538.

APPENDIX A

PURPOSE OF AFFIDAVIT

1. The purpose of this affidavit is to 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 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.

SYSTEMS INTERACTION TOPIC

2. Change to Testimony and General Circumstance Dictating Change

Consistent with the Appeal Board's decision in North Anna[1], staff's testimony on systems interaction in the Shoreham hearing included a discussion of Unresolved Safety Issue A-17, with the specific objective of demonstrating "justification for operation" of Shoreham despite pendency of that USI. I was the principal author of the portion of staff's written testimony covering systems interaction, and was a principal witness in presenting the staff's position on that issue before the Board. My testimony in that regard was based necessarily on my understanding, at the times that that testimony was written

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[1] See ALAB-491, 7 NRC 245 (1978)

and presented, of the state of the staff's program for resolving USI A-17, and more specifically on my understanding of such parameters as scope, schedule, priority, and resources allocated to that program. These parameters determine the rate of progress and actual results that can be achieved, or be reasonably expected, at any given time; they are, therefore, important indicators or measures of the adequacy of any USI program, and of the prospects for timely resolution of the issue involved.

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.

3. Background and Baseline At Outset of the Program for Resolution of USI A-17

As alluded to in the preceding, it is necessary to go back in time further than my participation in the Shoreham hearing last summer to set the background and to establish the baseline against which are drawn my current judgments regarding the adequacy of staff's systems interaction program. To recount briefly the relevant background, the judgment by staff management and the Commission that the systems interaction issue is a legitimate safety concern, serious enough to warrant designation as an Unresolved Safety Concern (i.e, USI A-17), was documented as early as 1977;[2] and a program for resolution of this issue was initiated in May 1978.[3] That initial judgment and action by NRC management in this regard was reconfirmed and reinforced in the aftermath of the TMI-2 accident by a strong recommendation of the Lessons Learned Task Force[4] (of which I was a member), and by further action by staff management and the Commission,[5] to strengthen the existing, on-going USI A-17 program. In early 1980, t ommission approved for inclusion in the TMI-2 Action Plan a provision f r an augmented and expedited systems interaction program; and a separate, dedicated organizational unit (the Systems Interaction Branch) was set up within the Division of Systems Interaction, NRR to plan and coordinate the conduct of the new, augmented program. By mid-1980, the new Systems Interaction Branch had developed the

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[2] See NUREG-0410

[3] See NUREG-0510 at p. A-12

[4] See NUREG-0585, Section 3.2 and Recommendation 9

[5] See NUREG-0660, Item II.C.3

program plan for the augmented (II.C.3) systems interaction program.[6] The expanded program included (i) studies in which staff-developed methodologies were to be applied on a trial basis in selected plants late in the construction and OL licensing process, and (ii) other studies, (already committed to by the owners of the Diablo Canyon 1 & 2, and Indian Point-3 facilities, to be initiated in mid-1980 and early-1981, respectively) employing methodologies developed by the utilities involved. The results of all these efforts, taken together, were intended (i) to provide the basis for resolution of USI A-17, and for the development by the staff of additional requirements and regulatory guidance for systems interaction studies (if required) for application to all reactors, within about 2½ years, and (ii) to provide useful information and insights to be factored into decisions regarding implementation of the National Reliability Evaluation Program (NREP).[7]

With the preceding background (by way of further establishing the "baseline" alluded to earlier for current judgments of program adequacy) the decisions and actions taken by staff management and the Commission to this point in the systems interaction chronology can be characterized as follows:

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[6] See Memo, dated 11/21/80, Stolz to Rubenstein, "SIB/DSI FY 81 Resource Projection"

[7] See NUREG-0660, Item II.C.2

a. Baseline Consideration #1

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[8] 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)

b. Baseline Consideration #2

The decisions and actions taken indicated clearly that staff management and the Commission intended timely resolution of this important issue. The period of time in which it was thought initially that this could be accomplished was 1-1½ years. However, it was found that the fault tree methodology which had been developed in the pre-TMI phase of the USI A-17 program was not suitable for general, broader application in systems interaction analysis, (as had been counted on)[9]; so about a year was added to the time period that had initially been contemplated for program performance, to allow for search-and-development of possible alternative methodologies by the staff. It should be said, however, that allocation of even ~2½ years for resolution of such a complex unresolved safety issue necessarily implied and, indeed, required

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[8] See NUREG 0510, at p. 10, p. 11, and p. 49 (Table 1-Category A definition)

[9] See Memo, dated 5/20/80, Angelo to Kniel, "Summary of Meeting with Sandia...to discuss...Task A-17"

assignment of high priority, and strong commitment to the USI A-17 program by staff management and the Commission.

c. Baseline Consideraton #3

With regard to the question implicit in the specification (as in Baseline Consideration #2, above) of the period of time to be allowed (at the outset) for the program to achieve timely resolution of USI A-17 (i.e., How to determine what is reasonable in that regard in view of the urgency of the matter?), the general concern underlying can be stated as follows:

> "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.

The judgment, then, regarding what is a "reasonable" period of time to allow for resolution of the systems interaction issue involves

somehow qualitatively (i) consideration of the rate of occurrence of unexpected events (in particular, serious precursor events) and (ii) a sense that the time allowed for resolving underlying causes of such events ought not to exceed some prudent fraction of the "average interval" for occurrence of such events, based on experience and observation. To say the obvious, that is a very difficult judgment for any individual to make, and should not, therefore, be left to ad hoc individual judgment. Such a difficult judgment on such a complex, important safety issue should properly be evolved (as <u>was</u> done in the series of events leading up to initiation of the II.C.3 systems interaction program; see Baseline Consideration #5) through a broad-based consensus forming process. As a strong corollary, once established in the proper manner (as described above, and in Baseline Consideration #5),schedules specified for the resolution of important safety issues (e.g., USI A-17) ought to be regarded seriously, and ought <u>not</u> to be overturned or extended significantly except on the basis of an equivalent process. More specifically, significant extensions should not be permitted or condoned simply by virtue of <u>default</u> on performance of the schedule established by consensus.

d. Baseline Consideration #4

Consistent with the high priority assignment and timely resolution objective for the augmented, post-TMI systems interaction program (see Baseline Consideration #2 above), although the II.C.3 program was to be closely coordinated with other programs (such as IREP[10] and NREP[11]), the schedules for the completion of studies intended to lead to the resolution of USI A-17 were established initially so as not to be linked to, or dependent upon, IREP/NREP program schedules in anyway that would delay achievement of the necessary USI-related objectives. Further indication of such intent is seen in the fact that the management of the systems interaction program (II.C.3) was established initially separate from the management of the IREP (II.C.1) and NREP (II.C.2) programs (i.e., with the program management involved in each case reporting to the Office Director and Executive Director levels through different chains of command).

e. Baseline Consideration #5

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

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[10] Interim Reliability Evaluation Program (IREP). See NUREG-0660, Item II.C.1

[11] See NUREG-0660, Item II.C.2

(i.e., the process outlined here). 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 (see Baseline Consideration #3). The decisions involved were evolved through a highly-visible and open consensus forming process, which included full opportunity for review internally by cognizant NRC staff and ACRS.

4. Changes in Material Facts or Circumstances Affecting Testimony

Having established in the preceding the background and baseline which form the basis for my understanding of the staff's system interaction program, and against which I form judgments regarding its "status" and adequacy of any given point, I identify, in the following, significant changes that have occurred with respect to these baseline facts and circumstances which affect my earlier testimony. Some of the changes identified occurred before my Shoreham testimony, and some after; but all bear materially on the question of current validity of my earlier testimony. And I believe that all must be considered together to understand fully my current position in this matter.

a. Excessive Delay in Resolution of USI A-17

The most significant deficiency of the current system interaction program impacting the validity of my earlier testimony is that, although we are now nearly at the end of the period of time allocated for the resolution of USI A-17, we are nowhere near to achieving resolution of this important safety issue, along the current track and at the current pace. My optimistic estimate, in that regard, is that that goal is still 2-3 years off without significant reordering of priorities and re-constitution of the II.C.3 program along the lines suggested herein. I conclude, therefore, that the program cannot be regarded or characterized as adequate (specifically in the sense required to be addressed under North Anna; see Baseline Considerations #2 and # 3).

To be somewhat more specific, although notable progress has been achieved in the development of promising "candidate" systems interaction methodologies by the staff (as planned), demonstration or trial of those methodologies has not yet been done (or even begun). And while there have been hopeful developments recently with regard to getting those efforts underway finally (on the basis of initiatives taken/supported by the Director, NRR himself), 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 (e.g., perhaps an additional 1-2 years). Also, 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 Indian Point-3 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).

In full view of these circumstances, the prevailing staff view seems to be to "stay the course"; i.e., continue along the current track at whatever pace can be achieved to eventual resolution of USI A-17, whenever that may occur. 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 system 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 (i.e., in the time period allocated and agreed upon at the outset; see Baseline Considerations #2 and #3), were that wrong in the first instance. The decision to delay or extend the schedule for resolution of USI A-17 is, by its very nature, a major safety decision and should not be made by default, or by a few individuals on the ad hoc "no evidence" basis indicated. (See Baseline Consideration #3)

I believe, therefore, that the proper course of action at this point is (i) to recognize the inadequacy of the current state of the program, and (ii) to "call the question" for reconsideration, and submit it to the same decision making process that established initially the time to be allowed for resolution of USI A-17 (See Baseline Consideration #5). In that respect, 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,[12] and the similar recommendation made by ACRS in January 1982[13], to wit: Require all licensees and OL applicants to begin limited systems interaction reviews of their facilities immediately, using methods now known and documented for use or

[12] See NUREG-0585, Section 3.2 and Recommendation 9

[13] See ACRS letter dated 1/28/82, "Systems Interactions"; also see ACRS letter dated 3/9/82, "Report on SI Study for Indian Point -3."

trial (even though not completely evaluated at this time). The reasons for favoring now the more direct and immediate approach are (i) failure to resolve the systems interaction issue in the three years that have passed since inception of II.C.3 (or in the five years since USI A-17 was initiated) by employing a less direct and immediate approach, and (ii) clear indication now 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.

In this regard it is noted that, while the staff (for whatever the reasons) has not developed and applied 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 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 from these system 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. Suitable arrangements could be made between the staff and each utility regarding the scope of review to be done at each facility, and regarding the choice of methodology to be applied, (including choice of one of the staff's candidate methodologies, if mutually agreed).

As a final point regarding this particular aspect of changes in circumstances that have affected my earlier testimony, it might seem that the conclusions drawn at this time in this affidavit, regarding inadequacy of the program because of failure to resolve USI A-17 on the schedule initially established (i.e., about now), could have been drawn as easily 6-8 months ago as now (i.e., during the preparation and presentation of my earlier Shoreham testimony).[14] Such is not the case. Although (as alluded to in Section 2 above)

[14] See, for example, Transcript of TMI-1 Appeal Board proceeding at p.300, for for reaction of Appeal Board just to the changes of circumstance outlined for them in the affidavit cited in footnote 19.

there had been unfavorable developments in some aspects of the systems interaction program in the months preceding my participation in the hearing (described in further detail in Section 4.b following), the program in other important aspects was showing significant progress and results. For example (i) the Indian Point-3 systems interaction program plan was approved in early March 1982, and was underway and proceeding very well by early April, (ii) the matrix-based dependency analysis methodology development effort was launched in late Spring 1982, and (iii) 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. Additionally, there seemed to be real hope of getting the badly-lagging methodology demonstration phase of the program back on track and moving as a result of a development that occurred in early May 1982. At that time, there came down from the Chairman's office a request for a briefing on the status of the system interaction program. I interpreted this as a hopeful sign because it indicated a show of interest, initiating at the Commission level, in the state of the program; and it seemed a very real possibility that this timely show of interest from that level could result in a turning point, especially for the methodology demonstration program which was lagging at that point.

So it can be seen, I believe, that 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.

b. De-emphasis on Systems Interaction Program Objective

In March 1981, the Systems Interaction Branch (SIB) of the Division of Safety Integration (DSI) was abolished, and all but two of the nine SIB professionals working on systems interaction were assigned to other licensing-related activities within NRR. I was one of the two remaining former SIB members who were transferred to the Reliability and Risk Assessment Branch (RRAB) of the Division fo Safety Technology (DST) to try to continue the II.C.3 systems interaction program. RRAB is the organizational unit within NRR with lead responsibility for PRA-related activities, such as NREP.

The most obvious thing that can be said regarding this development is that, insofar as organizational "stature" and allocation of resources reflect the real importance ascribed and priority assigned to a given project/activity in the minds of NRC management, this development indicated a significant decrease in the perceived importance of systems interaction

issue on their part, and correspondingly in the "effective" priority assigned to the program for resolving that issue. Concerns along these lines were expressed by me and other systems interaction staff to both SIB/DSI and RRAB/DST management at the time. And it was apparently also in this same vein that the TMI-1 Hearing Board raised questions regarding the motivation for, and possible effects of, this action.[15] All were reassured that any concerns in this regard were misplaced.

Despite such reassurances and the assumed good intentions underlying them, the effects of that action ultimately proved detrimental, as feared. Beginning at that point (gradually at first, but more noticeably as months passed) there began to develop in the management of the systems interaction program at all levels within NRR a noticable lack of emphasis on the completion of the II.C.3 systems interaction program (and resolution of A-17) on the basis and schedule established at the outset of that program.

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[15] TMI-1 Hearing Transcript at 15,615-15.629

More and more with time, the new organization seemed to lose sight of the fact that both the need and schedule for timely resolution of USI A-17 had been established at the outset by a broad consensus, based on the widely-shared judgment that the seriousness of the safety concern involved warranted an expeditious effort to resolve it. By contrast, at the same time that this apparent decline of emphasis and sense of urgency was occurring with respect to the systems interaction concern, increased visible emphasis was placed by staff management, and even the Commission, on PRA-related programs and activities. (e.g., quantitative safey goal development). It is in this respect that it simply must be said, at this point, that what has resulted is an inappropriate imbalance with regard to the importance being placed by RRAB/DST and NRR management currently on what is essentially "nice" (i.e., PRA-related activities) as compared to what must still be regarded, under existing rules and established procedures for reactor licensing, as "necessary" (i.e., programs for resolution of USI A-17).

These changes in attitudes on the part of management towards the importance, urgency, and priority of the system interaction concern are a major factor in my judgment of the adequacy of the systems interaction program currently, particularly with respect to prospects for resolution of USI A-17

at any reasonable time in the future, without a significant reordering of priorities and program redirection. (See Baseline Considerations #1, #2, #3, and #5).

The following specific examples are illustrative of the preceding general observations, I believe:

(1) Withholding/Delay of Final Approval for Implementation of Systems Interaction Methodology Demonstration

In October 1981, approval was given by DST to a proposal for initiation of the methodology demonstration phase of the II.C.3 program. In this proposal, approval by NRR was requested regarding final selection of the NTOL pilot plants in which candidate systems interaction methodologies were to be tested.[16] No action was taken (either approval or denial) by NRR at that time; and the effort stalled at that point, apparently over concerns that developed in connection with cost-benefit estimates required for the expected review by the Committee for the

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[16]See Memo, 10/28/81, Murley to Denton, "Implementation of Systems Interaction Interim Guidance".

Review of Generic Requirements (CRGR) of any NRR approval action on this proposal. In February 1982, however, in a letter from Mr. Dircks to ACRS (which required concurrence by NRR)[17] it was noted that "...the staff proposes to begin soon with reviews of four NTOL plants using two methodologies ..." That seemed surely to indicate some movement toward final approval of the proposal to initiate the studies described to the ACRS. However, more weeks passed with no final action on the request.

Meanwhile, (as also noted in the letter to ACRS), RRAB and DST management began considering various options for combining the systems interaction program with an already envisioned NREP/SEP combined review program. At this point still, the emphasis was said to be on expediting the resolution of USI A-17, as well as achieving cost-benefit advantages (to help in gaining acceptance/approval from (CRGR), by combining unnecessarily duplicative aspects of the three programs

[17] See Letter dated 2/12/82, Dircks to Shewmon, "Systems Interactions".

done separately). Apparently the promise seen by NRR in this approach was great enough that NRR approval of the October 1981 DST proposal on initiaiton of the NTOL pilot plant methodology effort was delayed again, while the combined program idea was developed and explored further. That process has continued since;[18] 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, approved by DST in October 1981 was discarded altogether. (I first learned that this was official in August 1982; a statement in this regard was inserted into an affidavit that I was preparing to the TMI-1 Appeal Board[19] in response to their request for a report on the status of the II.C.3 System interaction programs). As a final comment, it is noted pointedly that the notion of expediting the resolution of USI A-17 and achieving cost-benefit advantages by combining the program for resolution of USI A-17 with planned PRA-related programs did not work out well in any respect. I believe the basic error involved was in RRAB, DST and NRR management (i) not taking a more

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[18]See, for example, Memo dated 9/16/82, Ernst to Miraglia, "Revised CRGR Letter SEP Phase III/NREP", and Enclosures 1 & 2.

[19]See Affidavit dated 8/6/82, James H. Conran to TMI-1 Appeal Board.

aggressive posture with CRGR in presenting the II.C.3 related program proposal on its own merits, i.e., as a necessary program for timely resolution of a USI, and (ii) not resisting the post-facto imposition of a cost-benefit criterion in a way that delayed excessively the progress of that necessary program. (See Baseline Considerations #1, #2, #3, #4, and #5).

(2) Systems Interaction Analysis "Just a Part of PRA"

Even before being transferred to RRAB, I had begun to explore, in the context of my review of the Program Plan for the Indian Point-3 Systems Interaction Study the so-called systems interaction/PRA "interface", to try to understand better the relationship between the PRA which was already being performed (during 1980 - 1981) at the Indian Point facility and the proposed systems interaction study proposed at Indian Point-3.[20] As a result of my study of the interface question, I concluded, that the inter-system dependency information developed in a systems interaction analysis is important

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[20]See Shoreham Hearing Transcript, at p. 7534.

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.[21] (ACRS also made a similar observation in January 1982).[22] In documenting my conclusions in this regard, and in discussing this matter with RRAB and DST management, however, I took great pains to point out even more importantly that systems interaction analysis has inherent value completely aside and apart from PRA; because its results can be used readily and effectively to improve safety (in the context of the current "deterministic" licensing approach), even if PRA is never done.

I objected explicitly to the tendency that I saw within the organization to think of system interaction analysis as "just a part of PRA," because that tends to subordinate systems interaction analysis (a "necessary" program under existing rules and established procedures for reactor licensing, for resolution of USI A-17) to PRA-related programs and objectives (which do not have

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[21] See "Meeting Summary and Status Report" for July 24, 1981 ..." by J. H. Conran, at p. 3-4.

[22] ACRS Letter, dated 1/8/82, "Systems Interaction"

that "necessary" aspect to them in the established system). The culmination of this tendency manifested itself, I believe, in the abortive efforts (described in 4.b (i) above) to combine the II.C.3 systems interaction program methodology demonstration studies with NREP, without regard to the impact on the schedule for timely resolution of USI A-17. (See Baseline Considerations #1, #2, and #4)

(3) Use of Unreviewed Risk-Based Decision Criterion

Another manifestation of the "way of thinking" addressed in 4.b(2) above, is the informal, ad hoc use of an unreviewed risk-based decision criterion in deciding important aspects of the USI A-17 program performance. It appears that this practice figured, at least partly, in the decision to withhold final approval on implementation of the methodology demonstration phase of the II.C.3 program. A partial basis cited recently for withholding final approval in that instance was that the systems interaction staff had not shown that the "risk benefit" to be gained by doing systems interaction analyses would be significant enough to justify the effort and expense of trying. Such reasoning amounts to overturning, without due process, a major safety decision

made previously, on the basis of widely-share qualitative judgments, by post-facto application of an unestablished, quantitative risk-based criterion, (See Baseline Consideration #5). It is questionable also on the basis of the following considerations:

- o Inadequate treatment of common-cause failure is an acknowledged major source of uncertainty in quantitative estimates of risk based on current probabilistic risk analysis methods.
- o Systems interaction study is to a very great extent the pursuit of efficient methods to treat comprehensively and effectively common-cause or dependent failure.
- o The use, therefore, of quantitative risk estimates based (necessarily) on current risk analysis methods (flawed as they are by uncertainties arising from inadequate treatment of common-cause or dependent failure), as a basis for deciding to delay or halt system interaction studies that could eliminate or reduce significantly such uncertainties, seems at, best self-defeating, and at worst questionable logically.

Said another way, USI A-17 must be resolved before either (i) the current deterministic licensing basis and process, or (ii) PRA and quantitative safety goals, can be applied with the improved confidence sought in reactor licensing today (because they are both "flawed" by the same source of uncertainty, i.e. common-cause or dependent failure. So we should get on with it. What we need now as before is an adequate program to address this "joint" problem expeditiously and effectively.

c. Shoreham Specific Considerations

It should be said that any concern regarding the adequacy of the staff's generic systems interaction program has added significance in the Shoreham case. It must be recalled that LILCO has taken the position that the PRA that has been performed at the Shoreham facility has, in effect, resolved USI A-17. It seems fair to conclude, therefore, that if the staff does not effectively pursue timely resolution of USI A-17 through its II.C.3 systems interaction program, the concern involved is not likely to be pursued further by positive dedicated programs by LILCO.

There is, further, another possible synergistic-type consideration arising from LILCO's position on the safety

classification and safety classification terminology matter at issue between staff and LILCO (addressed in following sections of this affidavit). It is now clear that LILCO truly does not understand what is required minimally for safety, in the same way the staff (and the regulations) construe that phase. LILCO's position in that matter makes it less clear, then, whether systems interactions concerns have been treated adequately at Shoreham. For example, it may be that the difference between the positions of LILCO and the staff, regarding the claim that the Shoreham PRA resolves satisfactorily (for Shoreham) the systems interaction concern, derives from this fundamental difference in understanding of what is required minimally for safety (i.e., "How little, actually, is enough?") rather than from theoretical, matters-of-degree type arguments regarding the question "How far beyond what-is-required is enough?" (as seemed to be suggested in the discussions at the hearing regarding dependency analysis and walkdowns in the Shoreham PRA)[23]. This question would seem to bear heavily on the determination of whether LILCO has satisfied what is required under North Anna, regarding USI A-17, especially in this situation where the staff's "contribution" in that regard is called into question.

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[23]See Shoreham hearing transcript at p.6653, p.7500, p.7634 and p.7847

SAFETY CLASSIFICATION TOPIC

6. General Statement of Amendment to Testimony

At the time of my participation in the Shoreham hearing, it was not clear to me, as it is now,(with more time to consider thoroughly all of the testimony of Applicant's witnesses, and its full implications) 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). Coming to the discussions of these matters in the hearing with the background described extensively in my testimony, 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". That is to say, at bottom, I believed that, although we subscribed to a different set of words to describe them, both the staff and Applicant understood in basically the same way the fundamental safety concepts underlying the terms "Important to Safety" and "Safety-Related" (as the staff apply those terms). Considerable effort was made by counsels for the staff and Applicant, while Contention 7B was being argued, to work out what were perceived as resolvable language differences (as contrasted to fundmental lack of mutual understanding

regarding what is required minimally for safety). I participated in those efforts, and upon several occasions responded to cross-examination by counsel for Applicant in that context and spirit, suggesting that we may have achieved near-meeting of the minds by the end of argument of Contention 7B. I recognize now, that we are, in fact, not near a meeting of the minds on the very important fundamental safety concept at root in this matter. As a general statement of amendment, therefore regarding my testimony in that respect, it should be said that, to the extent that the Board or Parties might rely on such statements regarding "meeting of the minds" in my hearing testimony to determine outcome on Contention 7B, they should not do so.

7. Basis for Amendment of Testimony

The further understanding that I have developed in this regard is based on the following:

a. opportunity to consider longer and review more thoroughly the testimony of Applicant's witnesses,

b. involvement in the review of recent proposals by LILCO to the staff for resolving differences left outstanding at the end of argument of the safety classification and safety classification terminology issue in the hearing, particularly regarding non-safety Q.A.

c. synergistic consideration of a) and b).

In that context I was struck by how little movement could be seen in LILCO's six month old differences with the staff on these matters.

With a license at stake, and that long to think about and work on it, it seemed remarkable to me that there would not have been more substantive effort on LILCO's part to develop or promote improved mutual understanding on what I had thought were only language differences. The staff, for example, 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.

In pondering these questions further, I carefully reviewed the testimony of Applicant's witnesses again (in particular, testimony at p. 5425-5449 of the Shoreham hearing transcript), in which staff counsel sought to establish by cross-examination equivalency between staff's and Applicant's understanding of the fundamental safety-concepts involved, even though the language applied was different. In that review, I finally recognized that, 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 by counsel 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.

8. Implications of Amendment to Testimony

Having come to this realization and fuller understanding of these matters, I believe the full implications of this can be summarized as follows:

a. The concerns that occupied me chiefly at the time of the hearing focused most heavily on the implications of language differences, (i) with respect to impact on staff's ability to rely on Applicant's affidavits in the audit review context, thus complicating significantly (if not prohibitively)staff's ability to come to a finding of "reasonable assurance..." through the usual, established audit review process, and, (ii) with respect to possible impact on staff's ability to obtain information required for its regulatory function during operation of Shoreham, as contemplated under Part 21 (because the Applicant might not realize that he had to report information regarding failure of some component which he did not "call" Important to Safety, but staff did).

b. 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 required minimally to protect public health and safety. A language problem could be remedied simply by imposition of a definition; (or possibly even by a much more

complicated alternative scheme proposed by LILCO). But 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, I believe.

Therefore, 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. 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 regulations') safety classification terms. However, in the operation of a facility there is little that would act effectively in a similar way (i.e., as a backstop), either in the regulations, or in staff's procedures and activities. 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 their own

testimony, I believe there should be demonstration of remedy before licensing. The staff's preliminary (draft) listing of structures, system and components "Important to Safety" (referred to above) could be used as the starting point of an effort to do that, and could enable completion of such effort on a basis that would not have to interfere with licensing schedule.

MR. ELLIS: Judge Brenner, there was, I think earlier on we had indicated our view about motions to strike, and I think the Board has already ruled there would be no motions with respect to that. So with that I guess noting that -- the exception of LILCO, it is admitted.

JUDGE BRENNER: Yes, I think we all recognize -- I don't know if we all ever specifically stated it -- I think we all recognized what the problems would be; that is if we were going to have motions to strike portions of Mr. Conran's testimony, then the Board would feel the obligation to have Mr. Conran have a special counsel to represent him. Certainly, the County could have taken the position opposed, but that would not be the same as Mr. Conran's own counsel, and in fact also consistent with the leeway we want to give.

Mr. Conran, simply stated, tells us what he has in mind and we were reluctant to strike any portions based on our reading that did not mean that, if he had been represented by counsel, there aren't some portions that could have been struck. But on our own we suspected that the main grounds for striking it would not be grounds that would be prejudicial to the movement, but rather would be cumulative type grounds. And given that and the balance to avoid the procedural problems we had anticipated.

That was the reason, not because any motion to strike would have been unsuccessful on its merits.

Again, I don't know whether to break now or you have some simple introductory subject that would take 20 minutes or so.

MR. ELLIS: I'll do that, Judge.

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CROSS-EXAMINATION

MR. ELLIS: Good morning, Mr. Conran. My name is Tim Ellis. We have met before, I think, in the earlier proceeding. I am going to be asking you a number of questions concerning your affidavit dated February 9, and your previous testimony, as well.

In general, it is divided into two sections, as you know. The safety classification and the systems interaction.

I want to direct, if I may, my first series of questions to the area of systems classification. If I frame a question, or phrase a question in a way that you don't understand, or that confuses you, please don't hesitate to ask me or to tell me that you do not understand.

BY MR. ELLIS:

Q Mr. Conran, you originally sponsored part III of the Staff's testimony on contention 7-B; is that correct, in the safety or systems classification area?

A That is correct.

Q And that testimony was submitted on or about May 25th; isn't that correct?

A Yes.

Q When were you first assigned the responsib ility for preparation of that testimony, Mr. Conran?

A For the Shoreham hearing?

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Q Yes, sir.

A 7-B. In April sometime, I believe it was. It was essentially at the time that the Freedom of Information Act request was received.

Q You are referring to a Freedom of Information Act request from the County?

A I believe it was from the County, yes.

Q And were you assigned then the responsibility for preparing the testimony that appears in III of the Staff's prefiled testimony for 7-B on systems classification?

For your information, Mr. Conran, that begins on page 4 and proceeds to page 9.

MS. LETSCHE: Excuse me, Judge Brenner. I'm not sure if Mr. Conran has a copy of that testimony up there. Would it be helpful for you to have one?

THE WITNESS: Yes, it would.

MR. ELLIS: Perhaps the County can furnish you with their copy.

MR. RAWSON: We have an extra, Judge.

JUDGE BRENNER: We've got only one copy of that transcript, and we would like to hang on to it.

(Counsel proffered transcript)

BY MR. ELLIS:

Q When you answered before that you had prepared III of the Staff's prefiled testimony on

j-8-3

Contention 7-B, you were speaking from your memory of having prepared that?

A Yes, the general subject matter.

Q Right.

A Mr. Ellis --

Q Look, if you would, please, page 4 through 9, which comprises III, and confirm for me that that is the testimony you were assigned to prepare in April, and that it was ultimately submitted on May 25th as part of the Staff's prefiled testimony on 7-B.

(Witness complied)

A I was a co-sponsor of that testimony, Mr. Ellis. Mr. Rossi, I believe, also had a significant hand in developing that testimony.

JUDGE BRENNER: Mr. Conran, the accoustics in this room are not as good as the accoustics in Hauppauge. and you are going to have to speak clearly.

THE WITNESS: Okay.

BY MR. ELLIS:

Q Your testimony, then, is that you and Mr. Rossi jointly prepared III, pages 4 through 9 of the prefiled testimony?

A That's right. And in fact, other panel members also had the opportunity to comment on it and contributed in that fashion. Mr. Haas , for example,

j-8-4

made a significant contribution where it refers to quality assurance, and that sort of thing.

Q So, is it fair to say, Mr. Conran, that the testimony in III then was carefully considered and discussed and reviewed testimony within NRC?

A It was. I would add, however, that it was written without having seen the Applicant's testimony.

Q Yes.

A We were quite taken by surprise by your quarrel with the so-called Denton definition when we finally saw your testimony.

Q III of the prefiled testimony, pages 4 through 9, in fact, is generic testimony, isn't it, Mr. Conran? It is not testimony that is focused specifically on any particular plant or applicant licensee, is it?

A I would say it has generic application, yes.

Q So, the facts asserted and stated in III are facts that the Staff believed were true with respect to the Staff's review process for all licensees and all applicants?

A Yes.

Q Would it also then be fair to say that the testimony then in III would be true regardless or without regard to what you might learn from any particular licensee or applicant?

j-8-5

A I would not be so quick to agree with that, Mr. Ellis. I think the Staff's review process that is referred to in our testimony is based in a very fundamental way on certain understanding of the language of the regulations, and to the extent that a quarrel, a significant quarrel with the meaning of terms as the Staff understands them, would change that answer, why it's changed. I think that's the point that I was trying to raise in my affidavit.

Q But, Mr. Conran, would you agree with me that to the extent that the testimony in III makes statements concerning the Staff's review process without regard to any specific or particular licensee or applicant, those remain true today; isn't that correct?

A Mr. Ellis, maybe I didn't make myself clear before.

Q Can you answer my question, please?

MS. LETSCHE: Judge Brenner, I think the witness should be permitted to complete his answer.

JUDGE BRENNER: He finished his other answer. I understand what Mr. Ellis -- you can make yourself clear, but include that in the answer to the question. I think you had that in mind, Mr. Conran.

THE WITNESS: Would you like to repeat the question?

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MR. ELLIS: Yes, sir. Would you repeat the question, please, Mr. Reporter.

(Record read)

THE WITNESS: The statements made with regard to the Staff's review process would be true for any applicant that used the language the way that the Staff does.

BY MR. ELLIS:

Q Well, Mr. Conran, you indicated that you were taken by surprise as a result of the testimony of LILCO that was filed contemporaneously with the Staff's 7-B testimony. After the filing of the testimony, you filed additional 7-B testimony on the 1st of July; is that correct?

A That's true.

Q And in filing that additional testimony on 7-B, that was filed solely by you and not by the remainder of the Staff; isn't that true?

A That's true.

Q And when you filed that, did you indicate anywhere in it -- in your new testimony where any of the testimony in III would be untrue or inaccurate?

A I don't recall that I identified any of the previous written testimony as inaccurate, Mr. Ellis. It was quite clear, I believe, that I was expressing

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concern that went beyond the prefiled testimony which arose when we had a chance to first view Applicant's testimony.

Q Do you have your additional or supplemental rebuttal 7-B testimony?

A Yes.

Q You can confirm for me, if you would, please, that it does not in that testimony indicate that any of III has been changed or is inaccurate, in your view.

A (Witness complied)

As I recall, Mr. Ellis, I think I recall it correctly, I didn't identify any of our testimony as being inaccurate or untrue. The problem was with your testimony.

Q But you didn't change any of the Staff's testimony then in the rebuttal testimony; isn't that right?

A That's true. We added to it in a very material way, however.

Q Well, you indicated that the original testimony in III was jointly drafted by you and by Mr. Rossi, and then also had input, I think you indicated, from Mr. Haas, and was also reviewed by the other members of the panel.

Did it also receive review outside the panel within NRC?

A The original testimony?

j-8-8

Q Yes.

A Outside of NRC?

Q No, outside of the panel that testified, but within NRC.

A Yes. For example, my chain of command reviewed the testimony. I had asked that my -- at least my portion of it -- be approved up to the division director level.

Q And it was so approved?

A Yes, it was.

Q Did any other devisions review and approve it?

A I believe so, but I couldn't speak from personal knowledge in that regard, Mr. Ellis. I do recall that after raising and more or less insisting on the point, as far as my part of the testimony went, that I was told later that it had been approved at Mr. Case's level, who is the deputy director of NRR.

Q Who told you that?

A Mr. Reis.

Q Of your own knowledge, though, you know that your portion of the 7-B of the prefiled Staff statement was approved up through your division head?

A Yes.

Q And that is in addition to the other memb ers of the panel who reviewed it and concurred in it; is that

correct?

A That is correct.

Q Well, would it be fair to say, Mr. Conran, that to the extent that your testimony makes statements about what the Staff does, as opposed to what LILCO does, that that testimony remains true today?

JUDGE BRENNER: In Section 3?

MR. ELLIS: In Section 3, yes. Thank you, Judge Brenner.

THE WITNESS: What was described in Section 3 is the Staff's normal review process. In the course of the normal Staff review process, the Staff makes reference to the regulations in the terms that the Staff understands the regulations , so to the extent that the Staff is reviewing the submittals of an applicant who they either believe or know to be using the language of the regulations the way they do, that's a true statement , yes.

I think the point that I'm trying to make is that the Staff has done something extra in the case of LILCO, in the case of an applicant who insists on using the language differently than we do.

So one would have to add to that description in Section 3, whatever we've gone through in the process of this hearing and related activities.

j-8-10

BY MR. ELLIS:

Q Let's look at a few things specifically, Mr. Conran. You have the testimony there before you. Look, if you would, please, at the top of page 9.

A (Witness complied)

Q The first sentence there; do you have it before you?

A Yes, I do.

Q The first sentence at the top of the page reads as follows: "The Staff's prereview 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."

The items referred to there are the items that you would refer to as important to safety, but not safety-related; isn't that correct?

A That is correct.

Q And that statement is a generic statement about the Staff's review process independent of anything LILCO does, and that's true today as it was then; isn't that correct?

A You're talking about the normal Staff review process, yes; that's true.

Q All right. The next sentence states that "The Staff simply requires an applicant to commit to meeting

j-8-11

provisions of GDC-1, and has permitted applicants to determine the appropriate quality assurance requirements for these items consistent with their importance to safety."

That's still true, isn't it? That's still a true statement about Staff practice?

A It is true. You understand, consistent with my previous comments, the problem is with the term "commitment."

We accept commitments from applicants on the understanding that their understanding of the language of the regulations, their usage of the language, is the same as ours.

Q That statement, though, about the Staff practice remains true?

A Yes.

Q The next statement says "Appropriate quality assurance for some of these plant items may be no more than normal commercial practice. Nevertheless" -- I'm going on to the next sentence -- "Nevertheless, design criteria and quality standards for all structures, systems, and components important to safety are required to be addressed, some in considerably more detail than others, in the safety analysis reports submitted by the applicant."

j-8-12

That's also a generic statement about Staff review practice, which is true today as it was then; isn't that correct?

A Yes.

Q And the review process of the Staff then, based on the FSAR, is a review process to ensure that requirement is satisfied; isn't that correct? The requirement that structure, systems, and components, the design criteria and quality standards for those important to safety are addressed, some in more detail than others?

A Yes.

MR. ELLIS: Judge Brenner, you indicated 12:15, and I think if --

JUDGE BRENNER: All right. After a hearty lunch, Mr. Conran, I'm sure you'll be able to speak a little louder when you get back. It is hard, and your voice drifts down, but we can hear.

Let's take an hour and a half and come back at 1:45.

(Luncheon recess was taken at 12:15 p.m.)

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AFTERNOON SESSION

(1:46 p.m.)

JUDGE BRENNER: We're back on the record and prepared for LILCO to continue its cross-examination.

MR. ELLIS: Mr. Brenner, before I do so, prior to lunch you asked me to review the affidavit as it has been changed.

Just a couple of problems that I had. On page 26 there was a line, a bar that didn't seem to me to correspond to anything and I couldn't find a change on page 26.

JUDGE BRENNER: All right. Some of them are tricky. Some of them are very slight.

In the first one it puts "joint" in quotation marks and takes away the underlining. That is the end of the paragraph that continues over. In the lower one it adds the word "program."

Whereupon,

JAMES H. CONRAN

the witness on the stand at the time of recess, resumed the stand and was further examined and testified as follows:

CROSS-EXAMINATION (Cont'd.)

JUDGE BRENNER: If it is interaction; is that right, Mr. Conran?

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THE WITNESS: Yes.

MR. ELLIS: Then with the exception of, there is a footnote on page 14 which was added, we have not had -- I have not had an opportunity to review and there was also an ACRS letter.

That's footnote 14 on page 14, and there is an ACRS letter that was added to footnote 13. I hope we'll have an opportunity maybe to look at that this evening, but those are the only two things that I was not able to reivew over the lunch period.

The other changes that we reviewed we certainly agree are nonsubstantive in nature.

JUDGE BRENNER: When you said you'd hope you would have an opportunity to review it, did that comment apply to note 14, also, or only to note 13?

MR. ELLIS: To both.

JUDGE BRENNER: You have the transcript?

MR. ELLIS: No, sir.

MR. RAWSON: I have a copy of that, Judge. I'll be happy to make that available.

JUDGE BRENNER: All right. It's not going to be real important, but go ahead.

Again, that transcript is not in evidence. It is what Mr. Conran says and the testimony that counts. I don't much care what reaction in the context we have

before us right now, again in the context of the way Mr. Conray is using it. But I agree you should certainly have an opportunity to look at it in the event you feel you want to ask some questions in the light of what you said.

MR. ELLIS: Thank you, Judge.

BY MR. ELLIS:

Q. Mr. Conran, I am going to continue in the same area that we were in prior to lunch.

Generally speaking, the systems clarification area.

Just as a matter of clarification, am I correct that -- well, let me ask you: Have you reviewed your prefiled and cross-examination transcript testimony to identify the specific portions that you wish to change?

A. You're talking about my testimony?

A. Yes, sir.

A. That I wish to change here? I've done that for Mr. Rawson, and fairly exhaustively, trying to give an idea to counsel of the portions of the testimony that would be affected and I believe there was a filing based on that information.

I hadn't intended to change it here.

Q. Well, let's see. Perhaps we can do it in an efficient way. Let me review one other -- you were not an FSAR reviewer at Shoreham, were you, Mr. Conran?

A. No, sir.

Q. In connection with your affidavit, dated February 9, you indicated on page 29 two bases for the emdnement of your testimony. The first basis that you indicated was the opportunity to consider longer and review more thoroughly the testimony of Applicant's witnesses.

And the second one was, involvement in the review of recent proposals by LILCO to the Staff for resolving differences left outstanding at the end of argument of safety clarification and safety clarification terminology issue in the hearing, particularly regarding nonsafety QA.

The C you listed was the synergistic consideration of A and B. Those were the bases for the amendment of your testimony as reflected in your affidavit; isn't that correct?

A. Yes.

Q. You did not -- part of -- strike.

That is the complete basis for the amendment of your testimony, isn't it?

JUDGE BRENNER: I didn't hear your answer, Mr. Conran.

Oh, you didn't answer it. Fine.

A. I thought that I characterized it -- is there

something wrong with my characterization in the affidavit, Mr. Ellis?

BY MR. ELLIS:

Q. No, sir. I just want to know if you left anything out. I'm not complaining about your characterization at all.

A. No, that is the basis I cited.

JUDGE BRENNER: Now wait a minute. I'm confused. Is that the basis for everything in all your testimony, or only with respect to what you call the safety classification topics, starting on the top of the page?

MR. ELLIS: I only intended the question for safety classification as I professed.

JUDGE BRENNER: I missed that preface.

MR. ELLIS: Yes, at the outset I said I was going to continue in safety classification.

BY MR. ELLIS:

Q. Is that how you understood my question, Mr. Conran?

A. Yes, sir.

Q. Thank you.

Now, back to the chronology of events.

After you submitted your prefiled testimony which we examined today, III, there was then a period

during which you had an opportunity to review the LILCO prefiled testimony; isn't that correct?

A. Yes.

Q. And in addition, you also had an opportunity to listen to the LILCO panel cross-examination that lasted for approximately two weeks; is that correct?

A. That's correct; yes.

Q. And you were here for that whole testimony?

A. Yes.

Q. And only after -- would you characterize your review of the LILCO prefiled testimony as a complete review?

A. It was a complete review from a certain frame of mind, Mr. Ellis, and I alluded to it in the affidavit, and that was from the viewpoint that the differences that we saw in our positions with regard to definition were language problems and not fundamental differences in understanding of the concepts that are embodied in the terms "importance to safety" and "safety related" as the Staff understands those terms.

Q. We are going to come to that. But let me follow-up on what you said.

It is true, isn't it, at the time you reviewed your testimony, you then knew and understood that LILCO identified or equated safety-related with

importance to safety?

A. I knew they equated the terms "important to safety" and "safety related." I did not realize that you equated concepts. The thought that I was getting at in part of my affidavit where I said -- I finally realized that you clearly have a very much different understanding of what is minimally necessary for safety under the regulations. That realization did not dawn on me until November or December or somewhere in there.

Q. You did know, though, at the time that the term "safety related" and "importance to safety" were used in an equated sense or interchangeably by LILCO; isn't that right?

A. Yes. And we've seen very much that sort of problem, without, initially, the substantive problems that I finally recognized unique, at least in my knowledge, to Shoreham.

Q. When you say you've seen very much of that problem, you're talking about outside of LILCO?

A. Within the Staff, within the industry. I think we've been very candid about that. We've recognized problems with the consistent usage of the language.

Q. In other words, you had seen and you were aware of the fact that industry, portions of industry and individuals on the Staff interchangeably used "importance

to safety" and "safety related," equated them?

A. More, of course, with the Staff but also with regard to industry, yes.

Q. Now, at the time that you examined the prefiled testimony of LILCO, you also learned, did you not, about the quality standards and quality assurance applied to nonsafety-related structure systems and components at Shoreham?

A. We heard a great deal of testimony on that point, yes.

Q. And in fact, as I recall your testimony, you even indicated that you knew more about nonsafety-related quality assurance and quality standards at Shoreham than you would at any other place because of -- any other plant because of the extensive prefiled and cross-examination testimony?

A. Not quite. I said that we knew more about quality assurance, nonsafety quality assurance, than we did at any other plant because the Staff in the past has not reviewed in that area.

Quality standards apply to nonsafety components, no, I don't believe I made any such statement.

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Q But Staff does review the quality standards for nonsafety-related, doesn't it?

A Yes.

Maybe I should add to that, Mr. Ellis, for the sake of consistency, that the Staff reviews quality standards applied to nonsafety or important to safety but not safety-related equipment from a viewpoint that they may not have a proper understanding with the applicant that they are reviewing, but I don't believe that I know of another case where the Staff has reviewed an applicant where they knew where the applicant insisted that the scope of the regulations was considerably significantly smaller than what the Staff understood, so, again, the normal review process is premised on understanding -- a mutual understanding of the regulations.

MR. ELLIS: Judge, I need to look at a transcript here for a moment. We had all the volumes brought in, but somehow two volumes escaped us. They are on their way now.

MR. RAWSON: I have it here, but although I would note that is the copy we were planning to make available to Mr. Conran, I don't know if there are additional copies available if the need arises.

MR. ELLIS: Would you show Mr. Conran,

please, transcript pages 7709, and I think it goes over to 10.

BY MR. ELLIS:

Q That's the testimony that I had in mind, Mr. Conran, with respect to having more information about Shoreham than about other plants, and will you review that and confirm for me, please, that the reference there is to both quality standard and to quality assurance.

A (Witness complied)

I see reference here to standards, Mr. Ellis, but I think it should be clear that what I'm talking about there is to the extent that quality assurance requirements are called out in standards applied to nonsafety equipment. That's what I was referring to here, so the thought is still the same.

I may be having trouble with the language again.

Q Okay. Well, tell me what the thought is. That may be helpful.

A I divide between quality standards applied to nonsafety equipment -- maybe it is easier to say it this way: Quality assurance measures that are applied are applied to verify that the appropriate standards have been met.

Q Well, but the thought is that -- excuse me --

j-10-3

A The thought is that language can be ambiguous because I believe there is reference in other testimony in the hearing to quality assurance requirements being part of standards that are applied to nonsafety equipment.

So there was a misunderstanding on that count; that's the source of the misunderstanding.

Q Well, Mr. Conran, the point is that you knew more about Shoreham than about other plants, and your testimony today is that you knew more about the quality assurance for nonsafety-related at Shoreham than at other plants; is that correct?

A That was my testimony that day, Mr. Ellis. The point may have not got through clearly enough, but I remember the discussion, and I remember the testimony, and I remember what I intended, and the thought that I was trying to get across was that the Staff knew more about quality assurance as applied to importance of safety, but not safety-related components, and one place in the transcript I even said simply because the Staff doesn't review them normally and referred -- we've heard a tremendous amount of information about that here.

Q Having just one transcript, I apologize to the Board. Maybe I should come back to it.

JUDGE BRENNER: You can pursue, if you want.

Let me tell you and all the other parties, we did not ourselves bring, I'm sure, what would have been

j-10-4

10 or 20 volumes of transcript to try to guess which ones you were going to use in cross-examination in the sense that we would have to have it in front of us.

We have indications from your cross plan, but that's all, so if you are going to extensively rely on a portion of the transcript from more a passing glance, that would not reveal the substance, you better have some copies for us around this week, a page or two. I don't need it here. I remember this testimony.

MS. LETSCHE: Judge Brenner, if I might, our transcripts are arriving this evening, so we don't have them availab le to us either. If Mr. Ellis intends to pursue further this line of Mr. Conran's explanation, perhaps it would be easier for us, also, if we waited.

JUDGE BRENNER: Why don't we keep it in whatever sequence he wants to, just the mere reference to the transcript doesn't mean we have to have it. We'll see how it goes.

It depends on how extensive it is.

MR. ELLIS: The question that begins at page 7709, line 7, is, "Would it be fair to say with respect to the nonsafety structure-related systems and components that the amount of information contained in the prefiled

and cross-examination testimony gives the Staff, really, more information than it probably has about most other plants' nonsafety-related structure systems and components?"

In other words, it is not found in FSAR's and your answer beginning at line 16 was,"I think there is a good deal of the sort of information that was provided explicitly here in the Applicant's prefiled testimony. Implicit at least in the application reference to standards and the standards themselves, some of them contain quality assurance or quality control language, general type of language, but certainly to the degree of detail that we heard it here, I would agree that is true. And I think Mr. Haas does, as well, we have discussed it." So the central point then that you still agree with today is that at that time, that is, at the time you were cross-examined in July of 1982, that the Staff knew more about the quality assurance, as you stated, quality assurance of nonsafety-related structure systems and components at Shoreham than it did at other plants.

A Yes, that's certainly true.

Q And what you are saying today is that with respect to quality standards, you would say that then, I take it, that the Staff knew no more than it did

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with respect to nonsafety-related structure systems and components at Shoreham, than it did at other plants?

A The Staff, regulatory guidance, detailed regulatory guidance, is what the Staff knows and applies in the area of quality standards for equipment that is not safety-related, but it is still covered by our regulation.

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Q. Right, and to that extent, and to the extent that the Staff reviews the quality standards in the FSAR and subject to the Reg. Guidelines, it knew as much then about Shoreham as it would about any plant.

A. I think about the plant itself, that's true. The significant thing that I learned about the Shoreham application was the attitude or the perception, the perspective of the Applicant to safety philosophy, the Applicant. That's the point of this affidavit. I even said in this affidavit that perhaps the safety net that we have referred to, the backstop that we have referred to before would see to it that the structures, systems and components at Shoreham were designed and installed properly. I said "perhaps" because I wouldn't be able to verify that on my own, but there is a whole raft of expert Staff reveiwers who have done that and the remainder of the panel who fell more into that category than I do have maintained that is still so.

Q. I You are referring now, am I right, Mr. Conran, to the sentence on page 32 of your affidavit which reads "In the construction and design phase, the very detailed SRP and Regulatory Guide information can perhaps provide a safety net for backstop to mitigate the serious misunderstandings regarding Staff's and the Regulation's safety clarification terms."

11a2

Is that what you're referring to?

A. That's what I was referring to.

Q. Do I understand your testimony correctly that the reason you say "perhaps" is that you, yourself, are not a reviewer and are not the person who reviews Shoreham in detail and it is those people who could determine whether or not the very detailed SRP and Regulatory Guide information serves as a safety net or backstop?

A. That's certainly a big part of it. The rest of it is, if I were a detail reviewer, the question that is raised in my mind as a nondetailed Staff reviewer or having input to the Shoreham application, I would go back and look again to make sure that in areas where there may have been some ambiguity or some last detail not nailed down between the Applicant and I in discussions and the area that I was reviewing, if I were the technical reviewer, I would want to go back and check on the same basis that troubles me as not being a technical reviewer.

But, there is a good deal of testimony in the hearing from technical reviewers that has not been changed.

Q. I take it from what you are saying, Mr. Conran, that you can't offer an opinion, then, to this Board on whether Shoreham meets GDC-1 for the past; that that is a

matter you would leave to the expert detailed reviewers.

A. With the caveat that I mentioned, yes.

Q. Now, at the time that you had this prefiled testimony of LILCO on B and the cross-examination testimony as well as we've discussed, that testimony went into some detail on the quality standards and quality assurance for nonsafety-related structure systems and components , didn't it?

A. Yes.

Q. And at the point in time that you had all of this information, namely, the prefiled testimony and the cross-examination testimony -- at that point in time you decided that you needed -- that additional rebuttal testimony was appropriate and that was what was filed in July of 1982; is that correct?

A. Yes, the testimony at page 31 of the affidavit, I think, covers the point that you are addressing in a little more detail. The July 1 testimony was introduced to address the concerns which I talk about in 8-A on page 13.

Q. Now --

A. And the reason that it didn't go any further at that point was, although I recognized language difficulties, I did not recognize that there was the conception -- conceptual difficulty that I've also

addressed to the affidavit.

Q. In your rebuttal testimony on 7-B in July --

Is it fair to say that the essence of the classification effort is to make a judgment concerning the adequacy of quality standards and quality assurance to be applied to a particular structural system or component?

A. As I understand it, the safety classification is done to assure that appropriate quality standards are applied to all structure systems and components in the plant that the Staff, that the agency believes are important enough to safety, that they are covered under its regulations.

Q. And for that purpose the Staff uses a standard review plan and Reg. Guide 170 to ensure that applicants do that; is that correct?

A. The Staff relies on the standard review plan for the audit part of its review.

The Staff also must rely on affidavits from an applicant for assurance in areas that are not reviewed.

Q. And it also relies on the Regulatory Guidance documents that the applicant commits to; is that correct?

A. If it understands the commitment of the applicant, yes.

Q. Now, you indicated earlier that it would be --

it is really the function of the expert detailed reviewer to reach a conclusion as to whether or not the use of different terminology would lead to a different -- did in fact lead to a difference in substantive result.

Am I correct that the view you expressed in your affidavit is on a conceptual level and not on a hardware level? In other words, do you have a specific nonsafety-related structure system or component that you have in mind that did not receive quality standards or quality assurance commensurate with your judgment as to what it should receive?

A. I think the difference that I emphasized in my affidavit was the difference between the likelihood that even given our difference in understanding of -- conceptual understanding and language difficulties, even given those differences, that the Shoreham plant would be designed and constructed properly in accordance with the requirements and regulatory guidance and in the regulations that apply to Shoreham.

That topic, as compared to a concern over how the plant would be operating, having been put together properly, that's one part of what we're supposed to verify in licensing an applicant.

We also have to come away with some assurance that it is going to be operated safely, even if it is put

together or after it is put together properly. So I think rather than the difference between my understanding, my expert understanding of hardware versus a nonexpert conception of what the plant is, rather than that distinction, my affidavit is -- was going to the point that even if Shoreham, even if Shoreham is designed and constructed properly, the concern is whether it can be operated safely because of this fundamental difference in the safety philosophy that is reflected in the different ways that we read the regulations.

JUDGE BRENNER: Mr. Conran, I think you have in effect just summarized a large portion of your affidavit which is now your testimony here in terms of your interest in future operation as distinguished from past construction. But if you answered the question, I missed it. I understand the rest of what you gave might be amplification, but I would like to get the question repeated by the reporter, keeping in mind what you said and amplify whatever your direct answer is.

(Record read.)

A. I did address properly or answer thoroughly enough the question that goes to the conceptual versus the hardware.

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JUDGE BRENNER: You didn't answer the question; that was my point.

THE WITNESS: That's why I had it repeated.

With regard to a specific example, no, I don't have in mind a specific example, but I think it's important to understand the Commission's regulations that apply to importance of safety, but not safety-related equipment, or another facet of the defense in-depth sort of philosophy, where the reliability of it, what you refer to as the nonsafety-related part of the plant is -- contributes to safety in the operation of the plant in ways that are not tied to specific accident scenarios.

It's a tacit admission on the part of the Staff that we can't think of everything; we can't think of every example, that we can't think of the example that would make a certain point that we are interested in making, but we recognize that such scenarios or such examples might exist, and in an aggregatively cumulatively sort of way, the requirements that we put on nonsafety-related equipment are intended to contribute to safety.

JUDGE BRENNER: Mr. Ellis, can I interrupt for a few moments with some questions?

MR. ELLIS: Yes, sir.

JUDGE BRENNER: One reason I was interested

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in your answer, Mr. Conran, was a few questions earlier you had pointed out that, given the uncertainty you have as to where the concept differences that you now believe exist between the Staff and LILCO, you would, if you were a detailed reviewer -- and combining your preference with this answer -- although you don't have a specific example, you'd run some particular check and it occurred to me I was going to ask you sometime what type of check you had in mind.

Then when I heard your answer just now, it seemed to me that the kind of check you apparently have in mind would be very much the type of thing that we went through at some great length, as you know, on this record, going through the particular examples of systems that would be important to safety in a lot of people's minds, including some Staff witnesses' minds, and taking a look at how -- what quality treatment both standards and assurance -- those systems,structures and components receive, given LILCO's application of some of these terms, and whether the result would be consistent with what the Staff would give.

Isn't that the type of check -- what other kind of check would a detailed reviewer have?

THE WITNESS: Well, the sort of check that I had in mind was realizing that in the audit review process

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that we go through, that the areas that are reviewed in we eventually verify or acknowledge that we have found compliance with the requirements that apply to the areas that we are reviewing. We recognize that sort of agreement comes only after many questions back and forth.

For example, there is not a complete meeting of the minds the first time through the application, and in the case of Shoreham, there were several hundred questions that had to be generated in order to eventually verify compliance.

Knowing that, I would be inclined to expand the scope of my audit rather than just consider examples. Much like a statistical quality control process: If I found defects in the sample that I had taken, I would expand my sample.

JUDGE BRENNER: I guess I don't understand how you could expand the scope of the audit.

Would that mean looking at systems and structures and components that you would not ordinarily have looked at?

THE WITNESS: Yes.

JUDGE BRENNER: Isn't that what we did on the record here?

THE WITNESS: Now, not necessarily scenarios. Looking at additional parts of the plant and verifying by

actual review and give and take with the licensing that the quality standards that were meant to apply to that part of the plant actually were met, actually were complied with.

JUDGE BRENNER: Back to you, Mr. Ellis.

Thank you, Mr. Conran.

JUDGE MORRIS: Mr. Ellis, could I ask a question to verify something? I'm not sure I understand what you mean, Mr. Conran, by "quality standards."

THE WITNESS: From a quality assurance measure.

JUDGE MORRIS: Or quality assurance or Appendix B to part 50, or, for example, industry standards? Could you just expand on that a little bit? What's the difference between a quality standard, for example, and ASME standard, which regulates, in effect, the way in which a piece of equipment is built?

THE WITNESS: I think the quality standards, the sense in which I referred to them were, say, the actual detailed specifications of what the materials should be, or that there should be -- that the system that the component is in should be -- should meet the single failure criteria.

That's the sense in which I referred to a quality standard.

A quality assurance measure, in the case of

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the material specifics, would be whatever system of administrative controls and recordkeeping is put into place to assure that the component meets those requirements or those specifications in the first place and are maintained throughout the operation.

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JUDGE MORRIS: Is there a place in the Commission's regulation or regulatory guidance where quality standards are listed or identified as such?

THE WITNESS: I would say in the ASME Section 3, for example, that's what I think of as -- that's what I would cover under the umbrella of the term "quality standards," whereas Appendix B would be more the quality assurance measures.

JUDGE MORRIS: So, you would not consider, say, Reg. Guide 1.26 or 1.29 as a quality standard?

THE WITNESS: I think it could be, yes. I think it could be considered a part of the quality assurance function. It's -- insofar as it's different from Appendix B -- I think Appendix B is really what I would have in mind by specification of quality assurance measures.

MR. RAWSON: Excuse me, Judge Morris. Did you use the term "quality standard" or "quality assurance" in that last question?

JUDGE MORRIS: I thought I said standards.

But, Mr. Conran, I'm a little confused now, because Appendix B is a regulatory requirement. The regulatory guides are guidance, and ASME standard could be a requirement when incorporated in regulation, in fact, is in separate, I believe, so I'm not getting a clear

definition of what a quality standard is, or whether it's a term that the Staff used, as everyone knows and agrees upon what that set is that is covered by quality standards.

Am I missing something?

THE WITNESS: No. It may be that I use -- that I used the words differently than you do. A standard, for example, can also refer to a document, but by -- in a way that I was just using the terms juxtaposing quality standard against quality assurance measure. To try to make a point, I think of the quality standard as the specificationquality level of the component that we are talking about, whereas the quality assurance measure is what is done to assure that that quality standard is met and maintained.

JUDGE MORRIS: We've introduced a new term "measure." By that do you mean requirement as an example of one of the criteria in Appendix B?

THE WITNESS: Yes.

JUDGE MORRIS: You see why I'm having a little trouble understanding exactly what you're trying to --

THE WITNESS: Yes, sir.

JUDGE MORRIS: -- to say and defining between "regulations" and "standards" and "requirements" and "measures," and to understand your point about applying

these four things that I just mentioned to safety-related or important to safety and nonsafety-related is what we're trying to sort out, and so any help you can give us in relating those terms to the issue here will be very helpful.

THE WITNESS: Well, I don't know that I can do much more or better than I've done. In fact, the distinction between quality standards and quality assurance in the original testimony, I think, was -- that that distinction was made on a suggestion from me during the review process of the testimony, and I -- it may be like the important to safety and safety-related language problem.

It seemed we went through a lot of discussion originally, using that language, and I just made the assumption, I guess, that everyone involved in the discussion understood those terms as I did.

Maybe that's the source of continued confusion on the parties.

JUDGE MORRIS: I apologize, Mr. Ellis, for the interruption.

JUDGE BRENNER: In fairness to you, Mr. Conran, I don't think we have any single source of continuing confusion on this content.

MR. ELLIS: Let me see if I can follow up by

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quality standards, would you include III-E-279?

A Yes.

Q ASME 8?

A Section 8, you mean?

Q Yes.

A I'm not sure about 8. I think 3 and 8 -- Section 11 -- if 11 is the in-service inspection requirements, then I think 8 would also be a standard in my terminology.

Q I see. So your hesitancy on 8 is just as a result of your lack of familiarity with it?

A That's right. Yes.

Q How about ANSI-B-31.1?

Would you include that as a quality standard?

A In so far as the material specifications are in B-31, yes.

Q Do you know whether there are fabrication requirements in B-31.1 as well as material standards?

A No.

Q If there were fabrication requirements in there, would you consider those to be --

A Quality standards.

Q -- quality standards?

A Yes.

Q Let me follow up on a couple of other things.

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In your last answer to me before Judge Brenner asked you a question, you referred to requirements that we put on nonsafety-related structures, systems and components.

Do you remember that?

A Meaning the Staff of NRC?

Q Yes.

A Yes.

Q And those requirements would be requirements through the Reg. Guides that are audited by the Staff in its review process?

A Well, what I meant by that was the quality standards that is specified, whether it is in the Reg. Guide or not, that derives its authority from the regulations, from the general design criteria, the Regulatory Guides or standard review plans that are detailed guidance on a way to implement a requirement that is in the regulations, say, in the general design criteria. So I think we can get confused and mixed up on the word "requirement" as well, but I will try to avoid that.

Q Well, am I correct that there is no quality standards specifically called out in the regulations for any nonsafety-related structure, system or component?

MS. LETSCHE: Could you repeat that question for me?

MR. ELLIS: That's all right. I'll repeat it.

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Am I correct -

JUDGE BRENNER: Well, wait, Mr. Conran.

Let him repeat it.

BY MR. ELLIS:

Q Am I correct that the regulations do not call out a specific quality standard for any nonsafety-related structure, system or component?

A I can't think of a quality standard called out in the regulations for a nonsafety piece of equipment or important to safety, but not safety-related, but the general requirement is embodied in the regulations, say, in the form of general design criteria, and then detailed Regulatory Guidance documents specify a way of meeting that requirement, but the particulars of the Regulatory Guide or the standard review plan are not necessarily considered code requirements, because there is some flexibility left. But I'm using "requirements" two different ways there, I guess, and it's causing perhaps some difficulty or confusion.

Q. Mr. Conran, I think in response to either Judge Brenner or Judge Morris -- I don't recall which -- you mentioned several hundred questions that were asked of LILCO and responded to in the context of the FSAR. Is this a mechanism by which the Staff uses to supplement its knowledge of the plant throughout the FSAR to determine whether appropriate quality standards and quality assurance are being applied?

A. It is. I think the questions, particularly the second round, what are referred to as second-round questions, are also used for the Staff to state a position. If the Staff and the Applicant can't come to an understanding on the way that has been proposed for meeting of requirements, they are also used for that.

Q. And you say there have been a couple hundred of these or more?

A. I judge from looking at the last several volumes of the SAR that there are several hundred.

Q. You are not saying, then, you are familiar with these several hundred questions and answers?

A. No.

Not from having generated them, Mr. Ellis. I have looked in detail at several of them, just trying to distinguish whether they are all clarification or supplemental type of whether there was actually some

instances in which there appeared to be disagreement underneath to take a position, so I've looked at a few of them on a little more detailed basis that way. But I have no firsthand knowledge from having generated those sorts of questions.

Q. Well, would it be fair to say, then, that you looked at the type of question and answer and did not make a substantive or technical evaluation of the response?

A. That's true.

Q. Mr. Conran, let's go back where we were a few minutes ago.

As I understand your affidavit and your testimony today, your chief concern is with the future of Shoreham as opposed to the construction and design processes; is that a fair statement?

A. Well, I would say that's the area in which the unknown that I'm concerned about is probably the greatest. I still would harbor some reservation about how effective our review process has been because of the, what is no longer obviously just a language difficulty but a conceptual difficulty, as well.

I do admit, though, that expert reviewers who have gone through that process have come to the conclusions that have not been traversed on the record,

at least. As far as I know, no reviewer intends to change his testimony the way that I have.

Q. All right. I'm not sure -- I guess I wasn't quite clear about that.

You're talking about now whether the appropriate quality standards and quality assurance has been applied to non safety-related for the past; is that what you're referring to?

A. Yes, whether the number of examples that have been considered by the Staff in its normal process of review, plus the several others that we've gone through in the hearing process, in discussions in the hearing, whether that sample -- whether an affirmative, positive decision that we have reasonable assurance of compliance with the regulations in all areas, even those unreviewed, whether the sample size that we have taken is sufficient to come to that conclusion.

Q. That sample size would include everything that is called out in the SRP; is that correct? In other words, that's already been reviewed by the Staff and found acceptable?

A. Well, I'm not sure anybody said everything in the SRP had been reviewed. I thought the testimony was that everything -- every section of the SRPs may not have been reviewed. That is the nature of the audit review

process is such that in the review of an application there is not a requirement that every section of the SRP be implemented.

Q. But you didn't participate in that process so the people who did participate in that process, their testimony would be the probative or the governing testimony on that; is that correct, on what was reviewed within the SRP?

A. I'm not sure how to make that judgment or whether that judgment is mine, Mr. Ellis. I think the Board will decide that.

The point I was trying to make is, the people who actually went through that process have come to a conclusion that they found reasonable assurance of compliance or compliance, and that they have not withdrawn that sort of testimony because of the language difficulties.

Q. Would it then be fair to say that you leave to those expert reviewers the question whether there is reasonable assurance of compliance with the GDC-1 for the past?

A. I leave to the expert reviewers their judgments, Mr. Ellis, and I make my own. I'm saying the areas, the subjects with regard to which I make opinions, I still have reservations about whether or not normal review processes that we follow is even

supplemented by the few examples, or the several examples that we've gone through in the hearing is enough.

Essentially what you're -- effectively what you are insisting on is an alternate review process. The Staff has its normal review process which it can follow very nicely, given the fact that people use the language the same way. If people don't use the language the same way, then we found in this hearing it is necessary to do something else.

When you do something else, I have the feeling that you should do a hell of a lot because the normal review process has been established 15 or 20 years after practice and use and if you're going to substitute something for that process, then my feeling is you should probably get more thorough review, acceptance review than we've given it in this case.

JUDGE BRENNER: Mr. Ellis, maybe I'm missing some place as to where you're going, but I keep hearing the same questions and essentially the same answers for the last half hour with respect to your asking Mr. Conran whether he's changing the detailed SRP review.

He told you up front he is not and he indicated his reservations, however, over and over again, and not only is the area in general redundant with what we heard almost a year ago and in fact struck in every aspect of the County's testimony in response to your arguments on

that. I think notwithstanding that ruling, it was open to ask Mr. Conran whether he's changing that portion or not, and you've got that answer. And I think we are hearing the same thing again and again. I think we can move along faster, here.

MR. ELLIS: Well, Judge Brenner, I guess I do hear some different things and if you'll bear with me a moment, I will try to finish up this area and I'll try to be a little bit more focused in it.

BY MR. ELLIS:

Q. Mr. Conran, would you agree that it is possible for the Staff's review process to be -- strike that.

Would you agree that it is possible for an applicant or licensee to comply with GDC-1 without using the terminology of the Denton memorandum?

JUDGE BRENNER: Sorry to interject, but I take it as part of your question, assuming GDC-1 means what Mr. Conran thinks it means --

MR. ELLIS: Yes, sir.

A. More important to me whether the applicant understands it. You're saying there is a difference in language now. That doesn't bother me so badly because we've dealt with that before.

I would say it is perhaps conceivable that GDC-1 could be met, the design construction and operation of the

facility, even with the conceptual difference. But I don't know how you'd go about demonstrating that.

BY MR. ELLIS:

Q. Well, you agree, though, that language doesn't make any difference? You could call a set of structure, systems and components apples and oranges, and as long as you treat it in a way that is commensurate with its function, then you have a program that meets GDC-1; isn't that correct? It doesn't matter what label you put on it?

A. As long as you treat it commensurate with its importance to safety but not just commensurate with its function. This is the extended cross-examination that Mr. Rawson went through that I referred to in my affidavit.

I think there is a fundamental difference in the safety philosophy that is -- finds expression in LILCO's way of interpreting the terms important to safety and safety related, vis-a-vis the Staff's.

Q. Well, am I correct, then, that what concerns you is for the nonsafety-related structure systems and components that LILCO, your concern that because they use a different language they may not accord it the appropriate quality standards and quality assurance?

A. No. It's not just because you use different language. The difference in language doesn't bother me. We've dealt with that before.

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Q With other licensees?

A Yes. What bothers me about Shoreman is that you just don't use the language differently. You apparently actually believe that fewer things are necessary for safety than the Staff does. You do not acknowledge, in fact, I think you refute,that there are requirements under regulations for what you call nonsafety-related things.

That would affect not only possibly the design and quality standards that apply; it would also affect LILCO's way ot allowing or permitting or cooperating in the inspection of the facility while it was operating.

Q Now, a moment ago, Mr. Conran, I said that I asked you whether it would be all right to, or appropriate if structure systems and components that were not nonsafety-related were treated commensurate with their function. And you said that that was the problem, that we used the term "function" instead of its -- I think you said "safety" or "safety significance."

A I said what the regulation said, "importance to safety."

Q Now, is that the kind of difference in language that you think, that caused you your concern about whether LILCO understood what was minimally required for safety?

A Well, that difference, and the dogged

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insistence on maintaining that difference, is what got me to questioning whether there was something more fundamental behind the language.

It's not just a difference in language; ita's the difference in thinking; the difference in philosophy that's apparent if you look carefully at the sequence, the cross-examination sequence, where Mr. Rawson tried to sort this out with Mr. Dawe , for example.

It seemed clear in that part of the transcript that what was happening was, we kept coming back to the question. You said "commensurate" -- that you give importance to components commensurate with their function, and we kept trying to see if we can't make you say, or somehow say to us that it was -- that you pay attention to things, and you give attention to components because of their importance to safety, but we never could quite get -- we never get LILCO's witnesses to say that.

That's why, looking those passages over carefully again, it seemed to me what was happening was, you would admit certainly some safety significance to the importance to safety, but not safety-related components, but not enough significance that it would be numbered among the things minimally required or minimally necessary to safety.

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It's a matter of degree, but it's not a small matter, I think.

Q So really it is that testimony largely of Mr. Dawe on pages 5425 through 5449 on which you really base your concern that there is maybe a fundamental philosophical problem that you want to get to the bottom of; is that right?

A No. I think I said that particular part of the testimony, reading it over again very carefully, is where I finally confirmed in my own mind what really bothers me, and that is that LILCO does not acknowledge, in fact, refutes that there are requirements under the Regulations for what you call nonsafety-related components.

That's what bothers me. That's a fundamental difference from the Staff.

The agency thinks that what you call nonsafety-related things are important enough to safety that they are addressed under its regulations, and there are fairly stringent requirements that must be met. But basically, that those components contribute to safety in a way that's not associated with any particular design basis accident, but just what I've called in an aggregatively cumulatively sort of way; it gives us margin necessary, and the agency thinks that those components are important enough that they are addressed in its Regulations. And as

I understand it, you don't.

Q Well, LILCO doesn't have regulations. When you say "we don't," what do you mean by that?

A I say you don't recognize there are requirements under the regulations for that kind of equipment. It doesn't have enough importance that it's addressed under the regulations. The agency NRC does.

Q But wouldn't it still be possible that LILCO would consider that it was important enough to treat it properly with quality standards and quality assurance without regard to whether the regulations covered it?

A I've already said that it's possible, but I don't know how you demonstrate it, and, in fact, the longer that this lack of mutual understanding persists, I get less and less confident of safe operation without it.

It seems like there's something that is very important to LILCO that it keeps insisting on this position. That leaves me uneasy.

JUDGE BRENNER: Mr. Conran, I infer from what you just said that you think the questions and answers at 5424 to 5449 were illuminating to you.

THE WITNESS: That's the cross-examination of Mr. Dawe. Yes.

JUDGE BRENNER: You didn't agree with my comment

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at the time that they were rather total logical in nature?

THE WITNESS: I didn't. In fact, we had a discussion of that very sequence of events again when the Staff and LILCO met and ginned up yet another totology that is supposed to be the basis for resolving this concern.

I had some sympathy for people who did that in good faith, because I went through cooperatively with Mr. Rawson a similar exercise last summer. And you're right, at the time, I thought, I couldn't understand why you couldn't understand what we were talking about, but looking back over that entire sequence, I recognize that that was what the problem was, and that you accurately termed it a totology which did not accomplish a darned thing.

JUDGE BRENNER: Then why is it illuminating on this point if you agree with the totology? I understand what you're talking about. I thought the answers were fore-ordained from the questions.

THE WITNESS: It was illuminating not because I recognized that it was accurate to term that as a totological exercise, but in understanding why, even if you had accepted the totology, we would not have accomplished what we wanted to, because there was this other fundamental difference in understanding of what

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is necessary for safety.

We wouldn't have resolved just a word problem, in other words.

The understanding of what is minimally required and minimally necessary for safety would still have been there.

JUDGE BRENNER: I'll read the exchange again.

Thank you.

MR. ELLIS: I'm trying to get copies now, Judge Brenner, which I will give you. I'll come back to that as soon as we get them.

JUDGE BRENNER: I didn't mean to read it now. We've read it a number of times, I assure you.

Go ahead.

BY MR. ELLIS:

Q Mr. Conran, am I correct that your concern that LILCO does not understand what is minimally required for safety is based on LILCO's view that GDC-1, the use of important to safety is restricted to safety-related, namely, that LILCO's refusal to agree with the Staff or with your view that GDC-1 has a broader scope, that that is the basis for your concern?

In other words, if LILCO doesn't acknowledge that the regulation is broader than that, it doesn't understand what is minimally required for safety. Is

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that what your view is?

A Yes, but not just with regard to GDC-1, a number of other general design criteria use the phrase "important to safety."

JUDGE BRENNER: Make sure you let him finish. You were on the verge of interjecting a number of times. I think you actually got a half a word out while he was still answering.

MR. ELLIS: All right, sir.

BY MR. ELLIS:

Q Let me see if I can put it in more simple language. You are saying that LILCO's position with respect to important to safety being equated with safety-related, gives you the concern that with respect to the nonsafety-related structure, systems and components, LILCO may not be treating them appropriately in general.

Is that correct?

A Well, I think that is a general expression that is fairly close to the mark.

Actually, I would say it this way: That in LILCO insisting that important to safety meant only safety-related, that that reflects a difference in safety philosophy. It represents one side of a question that, it is my understanding, was argued quite extensively within the agency, as well as outside, I think, something like

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10 or 12 years ago, and that was whether, in order to reasonably assure public health and safety, NRC's regulations just focus on only the gold-plated, dedicated, accident-related systems, or whether there are other things in compliance that contribute to reasonable assurance for public health and safety; perhaps in nonspecific ways, but by supplying margin, if nothing else, that there are other things about the plant that are important enough in ensuring, giving reasonable assurance that they are addressed in Commission's regulations, as they appropriately should be, the things that are important to safety, public health and safety, are addressed in regulations.

LILCO does not seem to think that way. That leaves open certainly the possibility that LILCO's safety philosophy is much different than the Staff's, so you could agree to meet requirements just to be meeting them to get a license, but the way that you would operate the facility would reflect your basic safety philosophy, and besides that philosophy difference, there is the practical difference of how the Staff would go about understanding your submittals when you use language differently than we do. How it goes through the audit review process and verify the compliance the way we normally do. It's all these -- you may be

trying to simplify the concern too much.

Q. Well, the Staff does understand how LILCO uses the term, doesn't it?

A. I think we do now, yes, but I think we didn't last summer. I don't think anybody on the Staff realized that last summer.

Q. Let's look at, do you have the transcript in front of you -- you indicated that 5425 through 5449 were indicative to you of LILCO's failure to understand what was minimally required for safety; is that correct?

Do you have a copy of that, Mr. Conran?

A. I'm looking for it, Mr. Ellis.

Q. We have a copy that might help.

(Counsel proffered document to witness.)

JUDGE BRENNER: I don't know if you answered the question, though, Mr. Conran. I don't think the question required you to read that, as a preliminary question. Mr. Ellis would follow-up with the transcript.

THE WITNESS: Yes.

JUDGE BRENNER: I think he's asking you about page 30 of your testimony preliminarily.

Is that right, Mr. Ellis?

MR. ELLIS: Yes, sir.

JUDGE BRENNER: Do you need the question again, Mr. Conran?

THE WITNESS: Yes. May I have the question again, please.

(Record read.)

THE WITNESS: Yes, that's correct.

BY MR. ELLIS:

Q. Is the reason that you were concerned about that testimony as you read it again a concern that whenever the LILCO witnesses used the term "safety significance" they were there talking about only safety significances as would be defined in Part 100 of Appendix A? Do you understand the question?

A. (Witness nodded affirmatively.)

I think the perception that that was such a very heavy emphasis in your understanding and uses of the term "safety" or "safety related" as reflected, initially, in other parts of the testimony where you tried to establish just such a definition.

Q. Well, let me put it to you more directly.

Did you understand from this testimony that LILCO did not ascribe any safety significance to any structure, system or component that was not safety-related?

A. No. The impression that I got was that you attributed some safety relevance -- safety relevance to things that were not safety-related but not enough so as to be included among the things that were minimally necessary

nor required for safety?

A. Well, how much safety significance did LILCO attach to, in some quantitative way, to structure, system or component; do you know?

A. No. That's one of the problems, I think.

Q. You'd have to go, for example, to -- take the turbine bypass; that was one of the examples we had in the testimony -- in order to make a judgment, wouldn't the Staff, if the Staff were interested in that, look at the quality standards that were applied to the turbine bypass to see if those quality standards were commensurate with whatever safety significance the Staff ascribed to it; is that correct?

A. No. I don't think that would tell you. That would tell you whether or not you had met requirements. That would not tell me how much safety significance you attributed to that component.

Q. Well, does the Staff write down anywhere the amount of safety significance to attribute to the turbine bypass valve?

A. They do in a real and important sense. They tell the public and the world that the turbine bypass has enough safety significance that we cover under our regulations.

Q. You cover it in the standard review plan,

don't you?

A. No. We cover it under the regulation.

Well, I would have to look at the standard review plan.

Q. You don't know whether it is in the standard review plan or not?

A. To make sure, but the general format for the standard review plan is to reference the general design criterion or the section of the regulations from which the particular SRP section that we're talking derives its authority.

I would have to look at the standard review plan on the turbine bypass to see if that was done, but I don't know whether that was done. But in general, that's how we tell people how important things are to safety.

Q. By calling out standards in the standard review plan that should be met; is that correct?

A. By covering them with our regulations.

Q. Well, is there any regulation that specifically says what should be done to a turbine bypass valve?

A. Not that I know of.

Q. All right.

A. But in implementing the document, which references the section of the regulation, does --

Q. And would that be the standard review plan?

A. I believe that would be the standard review plan.

Q. But sitting here you don't know whether the turbine bypass valve standards are called out in the standard review plan or not?

A. That's not surprising, because that's not my area of expertise, Mr. Ellis. I've already said that I don't know the specifics of that.

Q. But if it is called out and if it is reviewed by the Staff, then whatever the category LILCO puts the turbine bypass in, you would agree that if those standards are approved by the Staff, then LILCO would assign or ascribe the appropriate safety significance to that structure, system or component; isn't that right?

A. No, I wouldn't conclude that at all. I would --

Q. What would you conclude?

A. I would conclude that LILCO had supplied, had provided that component with the right quality specifications but how LILCO thought about the operation of that and what they did in the operation of the plan, I wouldn't have very much assurance about that.

Q. All right.

A. I wouldn't have the necessary degree of assurance.

Q. Wouldn't you then go to the FSAR to see how

the description of that particular structure, system or component was described and what its function was set forth as in the FSAR to determine that?

A. Well, I think that's one of the things that I would do, but I would also -- I would also try to assure myself in the very straightforward way that is available to us, thatthe applicant thought of that, of that part of the plan with the proper emphasis on safety.

Q. Well, how do you determine that?

A. Using language the way you do, I don't know how, Mr. Ellis. That's one of the difficulties. I know how to do it when we have a common understanding of the language, but when you deny that the regulations of the agency cover that piece of equipment, I don't know how to determine it. That's exactly the concern that is raised here.

Q. What I'm having a difficult time with, Mr. Conran -- and let me try again.

You will agree with me that if the -- let's start at the beginning.

In terms of the fabrication, construction and erection of the turbine bypass valve, understanding its proper safety significance as reflected in the quality standard and quality assurance applied to the fabrication, construction and erection of it -- is that correct?

A. Would you repeat the question?

Q. Yes, I'll repeat it.

Would you agree with me that an applicant can demonstrate an understanding of the proper safety significance of a structure, system or component, like the turbine bypass valve, by according to it the quality standards and quality assurance that the Staff

agrees is commensurate with its importance to safety?

A. The question is can --

Q. For construction --

A. Can he do that? I think it's possible that he can do that.

Q. That's right. But one does not necessarily follow the other; right?

A. You can provide pieces of equipment in your plant with a very high quality level and still not think they are necessary for safety. You just do it to meet the requirements to get a license. It doesn't tell me what level of importance you give to that piece of equipment.

What tells me that more than anything is the way that you interpret the regulations. You say, no, that's outside the scope of NRC's regulations.

That's not required under the regulations.

Q. In other words, if you applied all the appropriate quality assurance and quality standards but did not acknowledge that it was within GDC-1 because of your construction of the term "important to safety," are you saying that the piece of equipment would be any less safe or reliable?

A. A piece of equipment has to be operated, Mr. Ellis. You are giving me conflicting signals. You meet the requirements. "I don't have to have to do this,"

you say,"it is not covered under the regulations, they are not required under the regulations. But I satisfy your requirements,"and then you turn around and tell me they are not important enough to safety to be covered under the regulations. That's a conflicting signal and I don't understand it.

Q. Well, you just said they are not important enough to safety to be covered in the regulations. Would it make any difference to you if what LILCO said is, "that is not our construction of the regulatory term "important to safety," rather than "nobody considers that 'important to safety'" in some generic sense?

Do you understand the difference between a regulatory construction question and a question of whether something has safety significance?

MS. LETSCHE: Judge Brenner, I have to object to that question. First of all, I'm not sure I understand it.

JUDGE BRENNER: You have to turn it over in your mind a few times and then it makes sense. Is that your objection, that you don't understand it?

MS. LETSCHE: No, but it's a hypothetical question in addition to -- maybe Mr. Ellis can try rephrasing it.

JUDGE BRENNER: I'm going to give Mr. Ellis a

fair amount of leeway. I'll tell you why. I don't understand how that exchange of that part of the transcript leaves anyone under any significance one way or the other. You may recall I warned Staff counsel of that when the Staff, in my view, was trying to draw significance from it to a conclusion different from Mr. Conran's. So I think I've been fair-minded in telling anybody regardless of the conclusion they are trying to draw from that exchange that maybe they are making too much out of it, given the way the questions and answers were phrased. And I had that exchange with Mr. Rawson and every time he tells them what point he wanted to go for, I agreed that the point he wanted to go to would be better off being created. My problem was he wasn't going to get from A to B the way he was proceeding and I warned him to cover his findings if he wanted to rely on it to that extent.

In fact, I warned them to cover it in their rebuttal testimony which was going to be filed shortly after and that's why I had gotten away as much as I did, that portion of the transcript, busy now they were in the process of preparing testimony, as you may recall.

By the same token, I don't understand why suddenly that exchange which was a revelation of Mr. Conran for him to draw his other conclusion from, so since people who I assumed to be reasonable and

intelligent people are each drawing solace from that exchange, although opposite solace, I obviously feel I'm missing something and it must be my fault. And given that I'm going to allow Mr. Ellis reasonable leeway to let Mr. Conran explain why that exchange back on, hard to believe, June 24, 1982, was important, and I think his last question does that.

As I said, you have to -- my first reaction was the reaction you voiced in your objection to the question; but if you turn it over in your mind, it might be important and it certainly could give us some insight into the way Mr. Conran is using the terms. So let's have the question reread, if it can be found in the forest of what we have just said.

In fact, I was going to suggest taking a break and giving the witness the question during the break and then coming back. But if you will, if you want a substitute question, Mr. Ellis, I'll allow it.

MR. ELLIS: I would like his previous answer, so that might help. I may rephrase it, and when I hear his previous answer, it might be helpful.

JUDGE BRENNER: Let's take a 15-minute break, and during the break anybody who wants to -- and presumably Mr. Ellis and Mr. Conran will be amongst those -- we can get the previous answer and the last question

repeated for them and let them have 15 minutes alone without our having to struggle with it. Let's come back at 3:35 p.m.

(Recess taken at 3:17 p.m., to reconvene at 3:35 p.m.)

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JUDGE BRENNER: On the record.

BY MR. ELLIS:

Q Mr. Conran, let me rephrase the question, and in doing so, I am going to paraphrase your answer, and if I am incorrect in paraphrasing it, please let me know.

In your previous answer, I think you said that you were -- there was a conflicting signal, and as I understand the conflicting signal, it is that LILCO is saying that it does recognize safety significance of nonsafety-related structure, systems and components, but at the same time says they are not covered by GDC-1, by the regulations, and that you regard as a conflicting signal; is that correct?

MS. LETSCHE: Let me note, Mr. Ellis, in my writing down what Mr. Conran's answer was, I didn't have him saying anywhere that LILCO acknowledges the safety significance.

BY MR. ELLIS:

Q Is that what you intended by your answer, Mr. Conran?

A Well, first of all, I was referring to the postulate, I think I would call it your postulate, that it was an applicant could indicate the degree of importance that they attached to certain components by meeting certain requirements, and my answer to the

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following question went to the point, I think, of whether or not because LILCO had demonstrated compliance with certain requirements that was necessarily indication they attached the same degree of importance to those components that the Staff did.

I may have lost track of the second part of your question.

Q Is it fair to say what you were saying is, if LILCO considered that nonsafety-related structure, systems and components were important to safety, then LILCO should agree that they are covered by GDC-1?

A Covered under the regulations. That seems to be a general statement of degree of importance that is attached to certain components in the plant, right.

Q I think you said what bothered you was that LILCO did not consider them important enough to safety to be covered by the regulations; is that what you said?

A Yes, that's the way -- that's what I understood is your position, yes.

Q Then, my question to you was, would you acknowledge a distinction between the plain language sense of important to safety and the regulatory legal sense of the phrase "important to safety"?

Let me strike that question, and let me try again.

j-18-3

Isn't it fair to say that somebody could ascribe tremendous safety significance to some structures, systems and components and still deny that it was covered by some particular phrase like "important to safety"?

A I think it's conceivable that they could.

Q All right. And whether or not an applicant ascribes the appropriate safety significance to a nonsafety-related structure, system and component, we've already established, you can determine, in terms of the construction, fabrication, and erection, by examining the quality standard and quality assurance applied to it.

A That's true.

Q And that's what the reviewers do through the standard review plan and so forth?

A That's what the reviewers do in an audit fashion. First of all, the fact that one uses language differently than Staff makes it difficult. The audit -- I'm sorry, not the audit review process, but the added element that is a part of the Staff's overall process, and that is reliance on affidavits for the areas, the SRP that not actually implemented or reviewed in detail -- are technical.

Q Are you referring now to commitments for the future?

A No. I'm talking about commitments --

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and your representations as to how the plant is put together, whether important to safety, but not safety related components are meeting -- meet the proper quality standards.

JUDGE BRENNER: Off the record.

(Discussion had off the record)

BY MR. ELLIS:

Q The importance to safety of a structure, system, or component would be a function, it would be a reflection, wouldn't it, of the function that it plays in the operation of the plant in all phases; isn't that correct?

A I would say that's one measure of it, yes. The point that I tried to make before, however, was that the Staff's regulations or requirements on nonsafety-related equipment may not necessarily be there, because --

Q I'm sorry. May not necessarily be where?

A Because its importance to safety was recognized in the context of some specific scenario, the way that -- through the same process that is done for safety-related equipment.

Safety-related equipment is, as it is provided by the Applicant, is measured for compliance or adequacy by testing it against design bases events, specific design bases events.

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That's not necessarily true of the important to safety but not safety-related equipment. They are not covered under the regulations, because someone has set down and said, there is a specific sequence where that's needed, and, therefore, it must be covered under our regulations.

That's not all the equipment that's important to safety but not related. It is not necessarily the same sort of basis for reason for --

Q How do you determine the safety significance of a nonrelated structure, system, and component?

A Well, one of the ways you do it is, as I think your witnesses talked about in the hearing, is whether or not the failure of that piece of equipment could cause an effect that was outside a Chapter 15 analysis, for example, but the point I was making, that's not necessarily the only reason that equipment -- important to safety, but not safety-related equipment would be covered under the regulation.

t-19-1

Q What else, other than method, can you use to determine the safety significance of a nonsafety-related structure, system or component?

A I believe it's several years process in which recognizion of the importance of reliability of nonsafety-equipment contributes to safety by not initiating transients and accidents. That would be another major consideration, although, again, you haven't -- that's not to say that anyone has considered an exhaustive set of scenarios to determine that.

Q Wasn't reliability one of the first levels of defense in depth that was considered and set forth by LILCO in its prefiled testimony in 7-B?

A I believe it was. But as I understood it from the answers of your witnesses, it was reliability with regard to power generation, and -- in other words, important to safety but not safety-related equipment was designed for reliability from the economic sense, and not from the safety sense.

Q Wasn't it defined by LILCO in its prefiled testimony onreliability in terms of plant that does not challenge itself rather than production of power by itself?

JUDGE BRENNER: Mr. Ellis, do you have some sort of a citation for that that you can refer to?

MR. ELLIS: No. I don't have a page number.

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THE WITNESS: I can't remember specifically, Mr. Ellis. I think probably that consideration was mentioned, yes.

Again, it's a matter of degree.

BY MR. ELLIS:

Q That would help to alleviate your concern if that were the case, wouldn't it?

A It's in the right direction, but I say again, it's a matter of degree, and that is how much importance does LILCO attach to that safety aspect of nonsafety-related equipment.

I think there is a significant difference between the importance that LILCO attaches to that sort of equipment, and the importance that the Staff attaches.

Q But you say that without knowledge of the details of the quality assurance and quality standards applied to them; isn't that correct? You are not making the judgment that there is a difference between what the Staff thinks and what LILCO thinks, based on your knowledge of the quality assurance and quality standards applied to specific structures, systems and components?

A No. I think all the specific cases that were examined, an adequate degree of compliance or coincidence was noted by technical reviewers, but I went on to say that all examples were not examined.

j-19-3

Q And your real concern is, if LILCO says that the nonsafety-related structure, systems and components are not covered in GDC-1 because of its construction of important to safety, then you have a question as to whether they fully understand what's minimally required for safety; is that what it amounts to?

A That is basically where the question arises, yes, out of considerations like that.

Q And I asked you before -- let me try it again -- assume that there -- do you agree that there is a difference between the plain language sense of safety significance or important to safety, and what a regulation might mean, using that term?

A Well, I can recognize theoretically that there might be a difference, yes, but why an applicant in a hearing, for example, would consistently use a term one way here than the other is something that puzzles me, I suppose.

I don't see a reason for it, when it seems to be a hangup in developing a mutual understanding between the applicant and the Staff on whether there is compliance.

I don't understand why there is that consistent misuse or difference in use of the terms.

Q You would have been, I guess, your concern

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would have been dispelled, and you would have been comforted substantially if LILCO had said "We agree that important to safety should be construed as in the Denton memorandum, and we accede to that, and we will henceforth use it in that fashion."

That would have dispelled your concern both for the past and for the future.

A When we first began the discussion, it would have, yes.

JUDGE BRENNER: You mean last year?

THE WITNESS: Yes.

JUDGE BRENNER: Not today.

BY MR. ELLIS:

Q And the reason that would have dispelled your concern is because, even though LILCO would have changed nothing with respect to what it did to any of these structures, systems, or components, it would have dispelled your concern because LILCO would have conceded that the regulations had a broader scope on GDC-1?

A No. If you changed in the beginning, I would have believed that you changed simply because we had worked out a language difficulty. That's happened a number of times in the past.

I wouldn't have believed that you were changing the fundamental way that you think about how many things

are minimally necessary for safety.

Q You said it's happened a number of times in the past. Where?

A Well, in the discussions that we referred to in earlier testimony, a number of discussions with members of t'e Staff, for example. Even several with representatives of industry regarding language -- regarding the way these terms are used in a language sense.

In other words, where we agree on the concepts that are involved, there is no difference of opinion between the Staff and the Applicant or to Staff members over whether nonsafety-related things, some of them, are covered under the regulations, but where in discussing it we simply misapply terms and that led to temporary confusion.

Q And the terms you are referring to are the term "important to safety"; is that right?

A Yes, safety-related, yes.

Q Are you saying there have been other instances in which applicants or licensees used it in the way LILCO used it and then agreed to change?

A Well, not in the licensing context, but in casual conversations where we were discussing how to work out these language problems, yes. Never in a licensing context, that I'm aware of, that I'm personally

j-19-6

aware of.

Q In other words, these are instances where the Staff became aware that an applicant or licensee was using the term "important to safety" in the way that LILCO was using it, and in something other than a licensing context, and the licensee or applicant agreed to change to the Denton sense of the term?

A No. It's more in the nature of conversations where, say, a representative of industry said "Yes, I know the terms are used both ways." But after we went through a discussion of why the Staff interprets the Staff's definition of these terms, they agreed that those were the proper ones.

Q Well, are you aware of any licensees or applicants that use the term in the manner that LILCO uses it, that is, the term "important to safety"?

A Not from having reviewed other SARs, for example, but I have had Mr. Haas relate to me that other applicants, other licensees used the term much like LILCO does in a language sense.

I'm not aware of any other applicant where an applicant or a licensee differs so fundamentally with the Staff on what the concept of important to safety means, the relationship between safety-related and important to safety?

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Q But you don't know whether they exist or don't exist, such licensees or applicants; is that right?

A I don't, of my own knowledge. LILCO, I think, has claimed that they do, which is a basis for recommendation and different professional opinion that we should put some priority to finding out what all licensees and all applicants mean by these terms.

Q Let me stay on this subject. I may come back to that, Mr. Conran.

Let's turn in an effort to find out what you mean by "fundamental lack of understanding," if you would, please, to the testimony I gave you a copy of, 5425 through 5449.

A (Witness complied)

Q Now, look at page 5441, which deals with the turbine bypass. Is there anything on that page --

A What was the page again, Mr. Ellis?

Q 5441. Is there anything on that page that suggests that the LILCO panel witness there, Mr. Dawe, did not understand the safety significance of the turbine bypass?

A Well, I suppose what I could do is read the testimony, and then read to you the notes that I made to myself and to Mr. Rawson when I reviewed this testimony to indicate portions of the testimony or understanding

of Applicant's testimony that would change when I was talking about the possibility of having to change testimony.

JUDGE BRENNER: I don't understand that comment, Mr. Conran. I think he asked you a particular question that you can answer. Maybe I misunderstood the question.

MR. ELLIS: No, I don't think --

JUDGE BRENNER: He didn't answer the question in your view.

MR. ELLIS: No, sir.

JUDGE BRENNER: Let's get the question repeated.

(Record read.)

THE WITNESS: Mr. Dawe's testimony only?

BY MR. ELLIS:

Q. Or anybody else's.

I pointed you to Mr. Dawe's because that's in 5425 to 5449.

A. I'm sorry. I saw a question addressed to Mr. Robare there.

JUDGE BRENNER: That's on the rod block monitor. It carries over from the previous page. He's asking you about the turbine bypass on 5441 and it's only Mr. Dawe's response to that aspect.

THE WITNESS: Your question to Mr. Dawe for each of those systems, Mr. Dawe, or Mr. Robare, again, under the assumed definitions, has an appropriate quality assurance program been applied to each of these four

systems in accordance with GDC Number 1?"

And the answer was: "Yes, sir."

My comment was, "You realize even under our definition almost any QA level could be characterized as appropriate. It is left up to the licensee no matter what he thinks is required minimally for safety."

So there is something about the answer that -- well, it told me that we had not resolved the point of difference between us and that on the basis of Mr. Dawe's answer our difference of interpretation whether or not there was safety significance to it had not been resolved.

Q. Well, the reason for that is there are no prescribed quality assurance or quality standards for the nonsafety-related; is that correct?

A. That's right.

Q. Well, then in order to -- in that question, though, Mr. Dawe assumed the definition in the Denton menorandum, didn't he?

A. No, I don't believe so.

Q. Well, doesn't that say "Under the assumed definitions"?

A. Well, Mr. Rawson had given Mr. Dawe a different set of definitions that were supposed to be essentially -- in the essentials that were supposed to be the same as the Denton definitions.

As Judge Brenner pointed out at the end, or in the middle of this cross-examination, that equivalence was never established.

Q. Well, would you feel differently about that question and answer if Mr. Dawe had assumed the Denton definitions in his response?

A. I suspect so, because the reason that we developed the alternative definitions was that Mr. Dawe wouldn't accept Denton's definition.

Q. But you understand that he was asked to assume definitions in his response to that question. You understand that, don't you?

A. Yes.

Q. Let's see if we can find what definitions he was asked to assume.

Look at page 5427 at the bottom going over to 5428.

A. (Witness complied.)

Q. You see the definition that he set forth at 5428?

A. Yes.

Q. And that's a definition broader than Appendix A, to part 100, broader than safety related, isn't it?

A. Yes.

Q. Did you participate in developing that assumed

definition?

A. Not directly. I had conversations with Mr. Rawson in which I had talked about examples of nonsafety-related or important to safety but not safety-related equipment that -- sort of spanned the range of importance that those kinds of components or systems would have, so to that extent I did participate. But I did not help Mr. Rawson develop these as definitions.

Q. That's a three-part definition, isn't it? The first one is the --

A. Part 100.

Q. Part 100?

A. Yes.

Q. Is that correct?

A. Yes.

Q. The second one is "which have some backup safety significance but are not required to meet part 100"?

A. Yes.

Q. And the third is "Which provide radiological protection to keep exposures below the limits set forth in part 20"?

A. Yes.

Q. Do you interpret that as narrower than the Denton definitions contribute in an important way to the safe operation of the plan?

A. I don't understand "interpret it as narrower." It's just not established that it's equivalent.

Q. Had it been equivalent, then you would not have had the difficulty, any difficulty with Mr. Dawe and Mr. Robare's testimony in these pages; is that correct?

MS. LETSCHE: I object to that question, Judge Brenner. That's purely hypothetical.

MS. LETSCHE: All of this testimony in here was based on what Mr. Conran has now been discussing and described his understanding of and attempting to keep the same answers to certain questions based on a hypothetical assumption set forth by Mr. Ellis is, I think, improper.

JUDGE BRENNER: It's not. It may be hypothetical at this point with no tie but your adverb "purely," doesn't apply. This whole dialogue -- and I say again Mr. Conran, there it is so important -- was based on these assumptions that the witness at the time was asked to make and if Mr. Ellis can tie this up with something that is in the record, I'm going to again permit him some leeway. Because I'm just lost, very frankly. I don't want to go too far. But I just don't understand some of the points being made by Mr. Conran and I want to allow him full opportunity and one way to do that is to allow him to respond to these questions because it helps me understand the parameters of what's important to him ultimately.

It remains purely hypothetical that I won't be able to do anything with it; it's just that simple.

MR. ELLIS: Judge Brenner, I'm --

JUDGE BRENNER: Go ahead; just ask the question. The objection is overruled. You won without any argument.

MR. ELLIS: Repeat the question, please.

(Record read.)

A. I don't know. I'd have to review the whole sequence in order to answer that question, Mr. Ellis.

If it would be easier, I would offer to go through this sequence and point out the areas that I did think were important and helped me form the opinion I did. We may eventually get there by responding to your questions, but so far that the areas you hit in were not particularly important in that regard.

BY MR. ELLIS:

Q. You didn't have any quarrel, then, with Mr. Dawe's response, then, to questions concerning the turbine bypass -- strike that.

Let me ask you this: You said just a moment ago one concern you had with respect to the response on turbine bypass was there were no requirements set by the Staff on quality assurance or quality standards with respect

to the turbine bypass and therefore the answer wasn't very significant to you; is that correct?

A. (The witness nodded affirmatively.)

That's right. Mr. Dawe's response to this question does not indicate in any unique sort of way what sort of safety importance he attaches to the turbine bypass.

Q. And one measure of that, a measure of that reflection of it would be the quality standards and quality assurance applied to it, you've already said; is that correct?

A. Yes, but he talks about appropriate.

Q. Did you examine the quality standards and quality assurance relating to the turbine bypass or --

A. No, but the point, Mr. Ellis, was that you could answer yes, appropriate quality standards were applied, and in the context that the Staff has not reviewed that, or has not specified requirements in the first place, that answer would not really give you a measure of how much importance was.

JUDGE BRENNER: Could I jump in, Mr. Ellis? I'm sorry if I take you far off the track. I apologize. But maybe this will help in my understanding.

In your last answer, Mr. Conran, how is that any different than the situation that exists with respect to

utilization? Yes, they applied GDC-1 to systems, structures and components important to safety and not safety related just the way the Staff does and GDC-1 requires that appropriate levels be applied, that is commensurate with the importance to safety.

What more do you know there than you know here?

THE WITNESS: Well, if I understand your question, where you said that the applicant involved understands or uses important to safety the way the Staff does --

JUDGE BRENNER: The way you do, anyway.

THE WITNESS: That's the measure of how that licensee or applicant thinks of that particular component. It's important enough to be covered under the Staff's regulations. That's the general answer.

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JUDGE BRENNER: Is it not correct, though, that the way it is "covered" under GDC-1 is by some vague term "commensurate with the importance of safety"?

THE WITNESS: Yes.

JUDGE BRENNER: And its function?

THE WITNESS: Yes, and maybe that's why it is necessary to have a true meeting of the minds to have an applicant acknowledge, just like the Staff does, that it's important enough, without getting quantitative about it, it is important enough to be covered under the Commission's regulations.

JUDGE BRENNER: What more do you know, with respect to that applicant, than you know with respect to LILCO? if I thought your complaint now with respect to LILCO was that you don't know particularly how important they think it is, if they just say they apply quality assurance programs that is appropriate under GDC-1?

THE WITNESS: I'm sorry, Judge Brenner. I think I lost track of you.

JUDGE BRENNER: I think, based on your explicit testimony, but in any event, I infer that you feel you know something more about the judgment as applied by other utilities with respect to quality assurance to

j-2-2

systems, structures, and components important to safety but not safety-related than you do with respect to LILCO.

My question is, what more do you know, given the fact that the guidance for applicability in GDC-1, even if an applicant accepts your application of GDC-1, is very vague? It is a matter of judgment as appropriate, and you testified and renewed your testimony here that the Staff doesn't particularly review it with, perhaps, some notable exceptions that we've talked about on this record.

THE WITNESS: I think what additional you know or have some indication about licensees or applicants that use the language the way that we do and subscribes to the concepts, the concepts of important to safety, is that of two categories that the applicant could fall into. One, that he thinks he only has -- well, that the safety related, the accident-related systems, if you pay attention to those and meet the Commission's requirements in those areas to the letter, that that provides an adequate degree of safety to the public.

That's one philosophy.

And then, the second philosophy is, no, it takes more than that. That's necessary, but it's not sufficient, that there is something else that must be done,

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and that attention to just the accident-related, safety-related systems is not enough.

That tells me -- that indicates to me that in that particular aspect of safety philosophy that there is a meeting of the minds between the Staff and the Applicant.

JUDGE BRENNER: I thought that based on your testimony that we were not at the first point with respect to LILCO, that is -- correct me if I'm wrong -- you did not read LILCO's testimony then or now as saying that they only applied quality assurance standards to systems, structures, and components which are safety-related in the meaning of Part 100 of Appendix A, and applied nothing with respect to quality assurance to anything else; that that's not the situation, is it?

THE WITNESS: No.

JUDGE BRENNER: So that eliminates that first possible concern, correct?

THE WITNESS: I believe so. The concern is really how LILCO views the quality standards; what are the requirements; are there quality standards that are required by requirements to nonsafety-related. The concern doesn't focus so much in the QA area, but in the quality standards area.

JUDGE BRENNER: And your complaint there was

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the expression on the part of LILCO that they do apply quality standards, and I guess I have to add "and quality assurance," since a lot of the testimony focused on that, and I'm not sure there is a real distinction putting that aside -- the testimony was that they do apply it as appropriate.

Your complaint just now was you have a concern that you don't know enough about what they mean by "as appropriate," and my question is, how is that any different than a situation that exists when a utility says they are applying GDC-1 the way you think it should be applied since GDC-1, I submit to you -- and correct me if you wish, without using too many words, says, "do it as appropriate."

THE WITNESS: I think I wouldn't be able to tell the difference in the quality assurance area. That response was talking about appropriate quality assurance program, not quality standards, but just what quality assurance measures are applied, so even with regard to applicants who interpret the regulations the way we do, for them to say they apply appropriate quality assurance measures, you're right. That would not really tell me anything more about them that I didn't glean from the statement about LILCO.

JUDGE BRENNER: Unless you looked at some

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particular examples of their application.

THE WITNESS: That's right, and since we don't have any requirements or standards to measure against it, it would still be difficult for me, at least.

JUDGE BRENNER: Although, if you had witnesses with expertise in the area based on an ad hoc basis, we can look at the examples and draw some conclusions, correct?

THE WITNESS: Yes. And I think it was on that basis that we said some fairly nice things about the quality assurance program with LILCO and their witnesses that apply, not my comments. I had commented on the basis that LILCO had in fact addressed them in some detail, but we did have Mr. Haas, who was able to make judgments on quality assurance, an expert on quality assurance.

JUDGE BRENNER: So I come back, and forgive me for repeating myself, but I want to give you full opportunity if you don't understand where I'm puzzled about something you said. I then do not understand how your complaint with respect to what you don't know about how LILCO is applying matters related to quality to structures, systems and components important to safety is any different than what you know about all utilities.

THE WITNESS: If you're talking about in the

quality assurance area, I don't think there is any difference.

JUDGE BRENNER: Now, the area you think there is a difference in is quality standards?

THE WITNESS: That's right.

JUDGE BRENNER: How do you know any more about LILCO with respect to -- how do you know more about other utilities with respect to quality standards than you do with respect to LILCO again with respect to important to safety category?

A What additionally I know about them, at least from representations, if they interpret regulations the way I do, is they apply them with the knowledge that they are applied, because they are considered important enough to be required in the Commission's regulations. They are viewed as necessary to safety.

LILCO does not make that admission.

JUDGE BRENNER: You're talking about principally GDC-1, although not exclusively?

THE WITNESS: No, not just GDC-1, but all the places that important to safety is used explicitly in the regulations. But because we are talking about quality standards, yes, that's the general application of the term "commensurate with safety importance."

JUDGE BRENNER: All right. You know more

about how these other utilities are applying it, because you know they are applying it in accordance with GDC-1; is that what you're telling me?

THE WITNESS: Not just in accordance with, but because -- there is the understanding, the implicit undersianding that this has a sufficient level of importance to safety. It's important enough to get into reasonable assurance of public safety, that it is a requirement, and they are meeting a requirement.

JUDGE BRENNER: But the requirement is to do it as appropriate, right? Pull out the exact wording if you want.

THE WITNESS: Well, with regard to -- that's right. In GDC-1, the wording is "appropriate," but with regard to quality standards there is a good deal more detailed guidance.

That's not true with regard to quality assurance for nonsafety things, but it is -- but that is true, there is considerable detailed guidance with regard to quality standards that would be applied to nonsafety or important to safety, but not safety-related.

JUDGE BRENNER: Where is that detailed guidance?

THE WITNESS: In the standard review plans and in the Regulatory Guides.

The implementing documents. It's not given in the regulations themselves, but those detailed regulatory guidance documents do have their authority or their origin in a regulation.

JUDGE BRENNER: And LILCO's application was reviewed against those, saying those other applications?

THE WITNESS: Parts of it were.

JUDGE BRENNER: On an audit basis?

THE WITNESS: Yes.

JUDGE BRENNER: And you're concerned maybe the audit didn't pick up everything?

THE WITNESS: Yes.

JUDGE BRENNER: Isn't thata comment on the way the Staff does its business with respect to all utilities as distinguished from a particular criticism of LILCO?

THE WITNESS: I think the Staff has been criticized because of that way of doing business, but the difference between the level of assurance that one could obtain by doing business in that regular way with an applicant other than Shoreham is, when somebody said under oath that they met your requirements in all other areas, why, you know what they meant.

We have no such commitment as I understand it from LILCO because they don't recognize the existence of requirements for nonsafety-related components -- requirements.

JUDGE BRENNER: You just said arguably two different things.

THE WITNESS: I said that I don't recognize there are requirements under the regulations for nonsafety-related equipment, important to safety but not safety-related things.

JUDGE BRENNER: In other words, they don't recognize that GDC-1 applies to such classification?

THE WITNESS: That's right; therefore they would -- the detailed regulatory guidance documents that specify some sort of requirements for those equipments are not regarded in the same way as a specification that has its origin or its authority in the regulations. There's a great deal more flexibility and it's just not accorded the same importance.

JUDGE BRENNER: But you believe all the utilities do interpret GDC-1 the way you do and historically and that Staff historically interprets GDC-1 the way you do?

THE WITNESS: The concept of importance to safety, as far as I know, LILCO is the only utility that

denies that there are regulations for nonsafety-related equipment under the regulations.

Now, LILCO has said and I believe some of their witnesses have indicated under oath that that is not true and that is the origin of the recommendation and a different professional opinion that we go find out more about that.

It could be that LILCO is attributing understanding to other applicants and licensees that it is unique only to themselves, but because of language problems and just the general difficulty of communicating in this area, they believe that there are other applicants or licensees who actually hold the same position that they do, but they don't.

I think the fact that the recommendations have been made under oath they should be taken seriously. We should act on them to find out if that's true.

JUDGE BRENNER: If it's true that they apply quality assurance and quality standards to systems, structures and components important to safety commensurate with their function or importance?

THE WITNESS: Well, specifically that they believe or they hold there are no requirements under the regulations on that kind of equipment.

JUDGE BRENNER: If the Staff in general and the

utilities in general historically applied GDC-1 the way you were interpreting it and contrary to the way you say LILCO is applying it, why was the Denton memorandum necessary?

THE WITNESS: To resolve the language difficulty. In other words, two parties could conceptually understand that in addition to safety-related things, there are also other plant features that are important enough to insuring public health and safety, that they are addressed under the Commission's regulations. You could have that same understanding and yet in expressing or discussing what sort of licensing requirements might come out of that, you would have misapplied those terms and could lead to confusion; but so that's the problem, the Denton memorandum was intended to address and to resolve. At least that's what I had in mind when I wrote the language of that memorandum. And as far as I know, that's all that Mr. Denton had in mind when he signed it.

If we thought there was a more serious problem such as this, I think recommendations that I made all along that we take further measures to really wrap up this language difficulty problem that we have, I think they would have been acted on sooner.

JUDGE BRENNER: I don't want to repeat old testimony a year ago, but I don't have particular citations. But didn't you spend some time giving us the background

about the length of time it took within the Staff to generate that Denton memorandum and how you, among others, were urging that it be issued sooner rather than later because there could be serious problems out there which the memorandum would be needed to cure?

THE WITNESS: Theoretically, the understanding has always been there that there could be more serious problems, but the times that I made recommendations in this regard to my management, the final answer -- the final question was do you know, do you know of any serious safety problems that have resulted from this language difficulty?

On the basis of my own knowledge, I had to say no. So that's the basis on which priorities were determined and that's why it took as long to get anything done in that area as it did.

JUDGE BRENNER: But I'm wondering if a high level of concern that you had back in that time period before the Denton memorandum was issued -- and I understand your reasons for it, as you told us at that time, and just reiterated now -- is not apparently inconsistent with your telling us today that you really don't have that concern with respect to utilities other than LILCO because LILCO is the only one that expresses things the way they do.

THE WITNESS: Well, I didn't say that

I don't have any concern, Judge Brenner. What I said, what I intended to say was, I don't have a recommendation under oath for six months insisting on it that we not only have a language difference but we have a conceptual serious -- potentially serious safety significant conceptual difference.

I don't have that from any other applicant or licensee. I do have some indication from LILCO's witnesses that this problem is shared that could be a defect in LILCO's understanding of things.

JUDGE BRENNER: I'm asking about your understanding.

THE WITNESS: On the other hand, it may not be, and I think it's more incentive to try to determine what the status of all licensees and applicants are in this regard and I think it is important enough to raise it again as a differing professional opinion.

Before I just submitted my suggestions or recommendations by memo and accepted the answer that came back when a higher priority was not given to doing that.

Now, on the basis of this development, I think it is important enough to make a recommendation again in a more formal way that we follow up on what at least LILCO says may be the case.

JUDGE BRENNER: I'm going to ask if you knew any more with respect to other utilities, given what I would call the very general type requirement of GDC-1. I think you said you wouldn't know anything more with respect to quality assurance under something like GDC-1, but your residual concern was the fact that some of the implementing guidance that the Staff uses in the standard review plan is applied by use of the term "important to safety." And you are concerned since the Staff's review is only an audit review, how LILCO would actually have done it.

Do you have any examples with respect to matters reviewed by the Staff where you think LILCO has not applied the proper quality standards or quality assurance, given the importance to safety of some system, structure or component?

THE WITNESS: No. No. I have acknowledged several times that I don't know of any examples. Even the technical reviewers that have done their detailed review. I have not discovered any.

JUDGE BRENNER: One reason I ask that was on this record, as you know, we pulled out a few examples probably brought forward by the County, and probably as a result of where the examination went near, and asked about that, and we'll be putting that record together as

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part of our decision, and I'm wondering if you saw anything in that, that is, I understand you on your own didn't go through the application of the standard review plan, but you have the added benefit here of the record being produced, and I'm wondering if you are familiar with that record, or -- I know you're familiar with the record.

Have you seen anything in that record that gives you an example?

THE WITNESS: No, not with regard to the specific examples that were mentioned. That is why I mentioned a while ago, though, that I think the legitimacy of the concern that I expressed is -- should not be judged on whether or not I can gin up an example to make the point, because covering this sort of components and systems under the Commission's regulations, in some cases, I believe was not dont necessarily to address some known specific sequence, the way the safety-related systems are treated. And it's another feature of the sort of defense in-depth approach, and the attention and the quality standards that are applied to these systems under the Commission's regulations do contribute to safety in ways that are not so specific. And, therefore, my lack of ability to identify a specific example that would make the point, drive the point

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home, I would not be the determining factor.

JUDGE BRENNER: Accepting for now your view that systems, structures and components, important to safety but not safety-related, are not tested by looking at any particular scenario -- and we've got testimony on particular examples, and we'll review it in light of what you just said -- accepting for now that's accurate, wouldn't that be true even with respect to the application by utilities that use GDC-1 the way you do?

THE WITNESS: I'm sorry, Judge Brenner. I --

JUDGE BRENNER: Well, do other utilities decide how to apply quality standards and quality assurance to systems, structures and components, which are important to safety but not safety-related, by testing them with respect to particular design-basis scenarios?

THE WITNESS: No, I think not. Some of the components that we're talking about did show up in the Chapter 15 analysis, but in general, I think that's not the approach, and that's not the only way that important to safety but not safety-related equipment is identified.

JUDGE BRENNER: That same approach is true with respect to LILCO, is it not? In other words, isn't that the same comment you made about LILCO?

THE WITNESS: Yes, sir.

JUDGE BRENNER: And in fact, some of their components which are not fully safety-related show up in the section of looking at some particular scenarios, also, I hesitate to say Chapter 15, because I'm not sure.

THE WITNESS: Yes, I believe from the testimony of the expert reviewer witnesses that they met all of those -- they have complied with the sort of procedures, Chapter 15 analyses, where that sort of component would be identified. Yes, I think they've done that.

JUDGE BRENNER: Some of the reasons I asked some of my questions is a statement so you understand. You tell us you have greater reservations here than you do with respect to other utilities, and I'm trying to explore the similarities and differences given the fact that GDC-1, in my mind, does not set forth any tangible objective requirement.

THE WITNESS: GDC-1 doesn't, but the implementing documentation certainly does, not again with regard to quality assurance, but with respect to the quality standards that apply, and those documents derive their authority from GDC-1.

They specify a way. In that sense, it is a requirement under the regulations. I think LILCO does not acknowledge that.

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To the extent that one's understanding or safety philosophy in that regard would affect or not affect safe operation, that's the basis of the concern. I can't help thinking thatpeople in the next 30 or 40 years of operation are going to operate that plant in a manner that is consistent with what they understand to be important, and that's going to encompass, you know, countless examples that I can't envision or anybody else can envision, but when it comes to making a judgment on how to operate a plant safely, even if it is constructed in compliance with regulations, that's a major source of concern to me.

JUDGE BRENNER: Well, but every time, and what I tried to do is take you back over every reservation you expressed today as applied to LILCO, and see if that same reservation in effect applies to all utilities, given the nature of the Staff's audit review and a lack of an objective requirement in GDC-1, and I thought I heard that, yes, that same reservation did apply, and I would submit in the last general statement that you made, that also applied to all plants in the real world.

I'll ask you, is that true or not true?

THE WITNESS: I'm not sure that I understand your question, Judge Brenner.

The concern that does not apply equally

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with regard to other applicants -- with regard to LILCO and other applicants who do not deny that nonesafety-related things are covered in the regulations is just that. There is a marked difference in safety philosophy and understanding of what is minimally necessary to operate a plant with no undue risk to the health and safety to the public, depending on how you -- what you recognize as the minimum set of requirements.

That's tied up inextricably, I think, with one's outlook on safety, and it is going to determine the way that the plant is operated. I have conceded that perhaps the plant, Shoreham, is constructed, designed and constructed in compliance with regulations, but the residual concern is how that fundamental difference in safety philosophy will affect operation.

JUDGE BRENNER: Okay. Thank you.

JUDGE CARPENTER: I would like to depart from your point you're making with Judge Brenner that you couldn't direct our attention to any specific examples. I certainly would grant that the absence of your being able to identify one doesn't mean that they don't exist.

I need a little help with balancing that against the fact we've heard testimony from licensing engineers, et cetera, and had a lot of cross-examination by lawyers with their concepts of what safety philosophies were to be applied. I'm trying to balance that against Staff review, how many individuals, technical staff reviewers do you think have been involved in looking at this license over the last ten years? This order of magnitude, ten, a hundred?

THE WITNESS: I would judge that it could be on the order of 40 or 50.

JUDGE CARPENTER: What I'm trying to understand is if they were -- now I'm focused exclusively on design now for the moment -- in the design area, if there were this fundamental problem, not just a semantics problem, but a fundamental design problem in terms of understanding what proper evaluations of importance were necessary, how is it that we wouldn't have some examples of Staff saying designs as submitted showed a failure to understand importance to safety as described in general

design criteria 1?

I'm coming back to the proof of the pudding, as appropriate, if you will. How can I get at appropriate steps in the specific examples of individual designs that had been submitted here year after year? What other evidence can we look to?

THE WITNESS: First of all, I think it may be unlikely that it would be expressed in those terms. I think the way that a concern on the part of an individual reviewer might be expressed is the design that you have submitted, or the information that you have submitted is not adequate for us to complete our review or for us to license the plant. That's why I mentioned it specifically the number of inquiries that have gone back to the Shoreham applicant in that regard.

I should go on to say, however, that I have not been able to determine that there is an extraordinarily large number of inquiries that have gone to the Shoreham applicant seeking to clarify or extract some other sort of commitment, but I think that is the way they would find expression.

So I think it may be very likely that sort of thing has happened a number of times in the past. It wouldn't be recognized as such.

JUDGE CARPENTER: Have you examined the nature of those questions to see whether they were, as you just

asserted?

THE WITNESS: I've looked at several of them, yes. I would like a chance to do more of that but, yes, I have. Some of them involved disagreements between the Staff and the Applicant where the Staff finally struck with what is called a position, and in a couple of cases that I recall there was even something was noted as a condition of license to resolve an outstanding point between the Staff and Shoreham.

Again, I would hasten to say that is not unique to Shoreham, in my knowledge, but there were that sort of examples.

JUDGE CARPENTER: It would seem to me that would give you a path to find specific examples which would make it very clear.

THE WITNESS: Well, maybe it would. I'm not sure that -- I'm not sure that one could attribute that necessarily to the differences in understanding that we have.

If there were similar disagreements between the Staff and other applicants who used the language the way we do, I'm not sure how to make that judgment.

But I would agree with you to this extent: I think that is why I started looking in that area to see if there was some evidence of extraordinary amount of disagreement between Staff reviewers and LILCO that one

might attribute to that factor.

JUDGE CARPENTER: What I'm having trouble with is understanding how LILCO and the designers can have met the quality standard to the extent that they have been audited by Staff and have been philosophically so far afield. That's where I'm having trouble.

I agree, certainly, with what we've heard in this room last July, but I'm having trouble reconciling that with all the guidance that's provided in these quality standards.

THE WITNESS: I think --

JUDGE CARPENTER: It certainly comes from a fundamental philosophical view that's very similar to that expressed in the Denton memorandum, as I understand it.

THE WITNESS: Well, with regard to design and construction, that's why I have taken quite a measured view or an approach to that question. Since there is such detailed regulatory guidance, I think it would be possible to build a plant and comply with all of the Staff's requirements, even if you didn't think like the Staff does. That's -- I think one would have to acknowledge that about as many people as there are on the Staff there are that many opinions of what is necessary for safety, but as opposed to what is required for safety.

I think that there are very many people who

think what is required for safety, everything is required for safety is not necessary for safety. That's why I put particular importance on recognition of what is required for safety because if you don't acknowledge what is required for safety, then you rely purely on your judgment of what is necessary for safety. That could surely lead to -- well, it could have safety significance in the context where there is not this detailed guidance. Plenty of opportunity to sort out differences that might occur because of that fundamental difference in the safety philosophy and I'm talking about operation, now.

JUDGE CARPENTER: Thank you.

As I say, I was trying to look for the converse and couldn't find examples, which must mean there is something that is causing those examples not to be apparent with I think are these quality standards as far as design is concerned. So I guess that really doesn't help us any. That isn't your area of concern at all; it is certainly part of the 7-B contention, however, but it doesn't seem to be the --

THE WITNESS: I would not say that it is not any concern, Judge Carpenter. To the extent that there might be some defect in the design that would slip through the audit review process, that is the residual concern. I think there still could be problems in there that were

unrecognized simply because we just do an audit review process and the thought that we were relying on assurances the way we normally do, understanding, a mutual understanding of what the requirements are under the regulations and assurances under oath that we've done our best to meet those, even though you haven't reviewed in that area.

To the extent that some defect in design that would result from a difference in philosophy could slip through that process, that's the residual concern. But I have seen in here admitted that perhaps a plan could be designed and constructed fully in accordance with the Commission's regulations, even though that fundamental conceptual difference exists. And I've also gone on to say that the expert Staff witnesses have said they have reasonable assurance that is true and have not changed their testimony.

JUDGE CARPENTER: Thank you for helping.

JUDGE MORRIS: Mr. Conran, I've been trying to distill what we've heard today into something that I can express in just a few words. Of course, I run the risk of oversimplifying if I tried that. But let me try something on you and see if it is somewhat similar to what I think your concern is.

You start from a basic tennet or belief that

LILCO does not admit that nonsafety-related equipment is covered by GDC-1.

THE WITNESS: Not just GDC-1, but GDC-1 certainly --

JUDGE MORRIS: We'll take that and anything else that you want to add onto it and I think in my mind, I can -- I know what you want. From that this leads to your concern that for those nonsafety-related structures, components and systems, they may not meet the minimal safety requirements which you believe are implied by GDC-1.

The reason I expressed it that way because you haven't been able to give any specific examples of pieces of equipment but you are concerned because of an attitude, and operating philosophy, if you will, that LILCO ould not meet the minimal requirements because of this philosophy.

THE WITNESS: The residual concern with regard to design and construction is that because the Staff doesn't audit review processes that defects or examples of noncompliance that might be in the Shoreham design would not have been caught by the Staff, first of all because they don't review everything, and secondly, in receiving assurances from Shoreham that with regard to things that I did not audit that we -- that they complied with our --

with what we expected.

Because of the possibility of misunderstanding that clearly exists because we use the language so differently, there is the possibility, I think, that something could slip through that net, but that's not my chief concern. The chief concern is with regard to how Shoreham might be operated, and how Shoreham -- how LILCO's legal construction of regulations would influence, for example, our inspectors doing their business.

Their understanding of what is required for safety, what is necessary for safety, being substantially different than the Staff's, being reflected in the way that they operate that facility.

JUDGE MORRIS: Would you anticipate that the inspectors over time would distinguish that difference.

THE WITNESS: I don't really know what to expect in that regard, Judge Morris.

I have heard from some inspectors that their attempts to inspect in nonsafety-related areas right now, even among licensees that I thought accepted and subscribed to our interpretation of the regulations, has not been exactly encouraged and met with some resistance and so in that sense I'm not sure that I would recognize the difference between LILCO and other licensees.

I don't really know.

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JUDGE MORRIS: I'm afraid if we pursue that, we'll get too far afield.

In any event, it is your feeling that something should be done now because of the concern you have that this attitude or philosophy might lead to something less than the minimally required set that you believe is required by the GDC-1, but which we could define nowhere?

THE WITNESS: No, that's not what I think.

JUDGE MORRIS: Is it defined somewhere?

THE WITNESS: I think the general requirement under GDC-1, the things provided -- the quality standards be provided commensurate with the degree of importance to safety is specified in great detail in Regulatory Guidance documents that are derived from or have their authority in GDC-1.

JUDGE MORRIS: Is there any example you can give where LILCO does not meet Regulatory Guides?

THE WITNESS: No, sir. I know of none.

JUDGE MORRIS: I'm lost in your logic.

THE WITNESS: Well, maybe to use a simple sort of example: Because an automobile is constructed in every way safe does not mean it will be operated safely, and if in licensing someone to operate an automobile, the applicant to the license said "I want a license, but I don't recognize the regulations that you people have on the

books. There's no requirements -- I don't recognize any of the requirements that I operate an automobile less than 40 miles an hour."

That attitude, or that approach, or that interpretation of understanding of regulations, and what the licensing authority could specify, and why it was specified for the general good would leave me some concern, I think, and it's -- it's in that area, I think, the operation of Shoreham, how a safety philosophy, how an interpretation of the regulations is as different as Staff's, as LILCO's, has, might influence operation of the facility, is probably the greatest area of my concern. And I think that's reflected in the affidavit.

JUDGE MORRIS: Aside from the fact, if it is a fact, that LILCO does not admit that nonsafety-related structures, systems and components are covered by GDC-1, is there anything that leads you to believe that they haven't driven safely, or as appropriate?

THE WITNESS: Well, they haven't driven yet, that's the point. I think -- I have admitted the possibility, and also admitted the testimony, and the opinions of the expert technical reviewers that Shoreham perhaps was constructed in compliance with the intent of the regulations.

I've also gone on to say that the larger part of the concern is in the operation phase of Shoreham.

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JUDGE MORRIS: The concern stems from that simple lack of LILCO to say that they agree that GDC-1 requires attention to nonsafety-related equipment; is that correct, or --

THE WITNESS: Not just GDC-1. Everywhere the term "important to safety" is used, their interpretation is that it applies only to safety-related; therefore, they have given the Staff no commitments to meet, requirements for important to safety but not safety-related equipment as a requirement. They don't recognize a requirement in that area.

They treat specifications on that sort of equipment somehow differently than requirements that -- requirements of regulations, I think is their term.

I don't say that it is just that. I don't think that's a small difference. I think that's a very fundamental difference in safety philosophy.

One reason that I think it is, is there were considerable discussions of that very point when I first came aboard on the Staff, worked for the ACRS, and heard discussions of this sort of thing, and licensing review context over and over again.

The notion that what is really necessary, as opposed to required now -- all that is really necessary to protect public health and safety is that in the last ditch,

when things go wrong, you have systems available to recover the plant from design basis accidents or transient conditions, that's one philosophy.

Another philosophy is that, yes, that is necessary, but it's not sufficient. That is, there is more that has to be attended to under the regulations; there are requirements. These other things are actually important enough to specify to some degree to assure public health and safety.

JUDGE MORRIS: So, are you telling me that in addition to the position of LILCO, that it is your opinion at least in the way that they implement some of the other requirements, GDC-1 or other requirements, they have indicated a performance different than the Staff would accept, or different than it is accepted at other plants.

THE WITNESS: No, I have specifically testified otherwise. I know of no examples from the testimony of other witnesses of deviations from requirements in areas in which the Staff has reviewed, with the caveat, of course, there is considerably back and forth correspondence required to get to the point where the Staff could verify compliance.

JUDGE MORRIS: I think you indicated that you have no knowledge that the back and forth questions and answers was any different with LILCO than it is for most

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plants; is that correct?

THE WITNESS: I haven't that indication. I simply haven't done enough analysis in that area to say one way or the other.

JUDGE MORRIS: Are you able to compare the amount of time spent on FSAR review or Reg. Guide compliance review at Shoreham, as compared to other plants?

THE WITNESS: Except for the testimony of Dr. Spees last summer, I wouldn't. I think he indicated that perhaps more review effort has been spent on Shoreham because of the interruption in the licensing process, and that sort of thing.

JUDGE MORRIS: And the reviews for other plants are also audit reviews?

THE WITNESS: Yes.

JUDGE MORRIS: That may have unreviewed portions ov them, too.

THE WITNESS: Yes. The difference, of course, is the importance to be able to rely on LILCO's assurances and compliance in other areas where the term "important to safety" was involved.

JUDGE MORRIS: The way I read GDC-1, it requires a program for important to safety structures, systems and components, but does not require that that program be described and submitted to the Staff; is that

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correct?

THE WITNESS: That's the way it is implemented, yes, sir.

JUDGE MORRIS: That's the way it has been implemented for all plants?

THE WITNESS: Yes. And the contrast is for safety-related things where Appendix B specifies in considerable detail what is required by way of quality assurance program.

JUDGE MORRIS: So the Staff doesn't really know whether there's been a systematic attempt to treat the important to safety items at any particular plant?

THE WITNESS: I think the indication is that, and we've acknowledged this in testimony, that Applicant's testimony indicates there has been an attempt in the nonsafety-related quality assurance.

JUDGE MORRIS: At Shoreham?

THE WITNESS: Yes, at Shoreham.

JUDGE MORRIS: And this is done at other plants, as well?

THE WITNESS: I think it's not verified at other plants. I think it's quite possible that it's done at other plants, architect engineers and vendor representatives, for example, have indicated that the quality assurance practices at Shoreham are not necessarily unique,

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but I don't know of a case in which we have testimony, sworn testimony of quite the detail that we have on the Shoreham document.

JUDGE MORRIS: I think I'll stop at this time. It's a little after 5:00. We are all getting tired.

JUDGE BRENNER: I want to ask you a question about it now, in effect, probably don't want to spend the whole time we're here because I think we've got plenty on the record about it, but I'll submit, given your last answer, Mr. Conran, as the Staff's review has evolved, the break between safety-related on the one hand and important to safety but not safety-related on the other hand, is not as clean as the Staff reviews one and not the other. That is, Staff has culled out certain things that they consider very important to safety, if you will, although not strictly safety-related, and have reviewed those, and we've looked at some of those examples for Shoreham, also.

We've got that on the record, too. We are going to stop here because of the time. I apologize, Mr. Ellis. Every time I think we'll wait until the end, I can't wait, and I'm afraid I'll forget why I was confused, and then worry about it a few weeks later after the record is closed. And that's why I jumped in when we did.

I realize by the time I got to the end some of my questions, I infringed on some of the things you were going to ask. I hadn't intended to go that far, but having done that, maybe they helped. Besides the time factor, this is probably a good place to break so that you can take a look at what you want to proceed on and proceed without interruption. I don't know whether we saved time or wasted time.

MR. ELLIS: Thank you, Judge Brenner.

MS. LETSCHE: Before we break, I wonder if just for the parties' convenience Mr. Ellis has any kind of a general estimate of --

JUDGE BRENNER: I'm going to let the parties talk to each other. I'll tell you why I say, I heard a lot about it in the past year, and I think we wasted as much time talking about it as long as it took to talk about. When it becomes important for us to know, we will ask it on the record. At this particular point, I recognize why the parties would have an earlier need to know than we would, because of scheduling witnesses. We simply expect the parties to discuss it right now among themselves, and to continue to discuss it so that to the fullest extent possible, we can accommodate witness schedules, recognizing what some of our limitations might be.

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We keep on at this pace limitation, I was worried about what might not apply. We'll be back at 9:00 o'clock tomorrow morning.

(Whereupon, at 5:05 p.m., the hearing was adjourned, to reconvene at 9:00 a.m., Wednesday, April 6, 1983.)

CERTIFICATE OF PROCEEDINGS

This is to certify that the attached proceedings before the NRC COMMISSION

In the matter of: Long Island Lighting Company
Shoreham Nuclear Power Station

Date of Proceeding: April 5, 1983

Place of Proceeding: County Center, Riverhead, L.I., N.Y.

were held as herein appears, and that this is the original transcript for the file of the Commission.

Carl W. Girard
Official Reporter - Typed

Official Reporter - Signature