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NUCLEAR REGULATORY COMMISSION

NRC STAFF MEETING WITH LONG ISLAND LIGHTING COMPANY

DKT/CASE NO.

TITLE TO DISCUSS THE CLARIFICATION OF SYSTEMS, COMPONENTS, AND STRUCTURES FOR SHOREHAM NUCLEAR POWER STATION

PLACE Bethesda, Maryland

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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

MEETING WITH LONG ISLAND LIGHTING COMPANY

TO DISCUSS THE CLARIFICATION OF

SYSTEMS, COMPONENTS, AND STRUCTURES

FOR SHOREHAM NUCLEAR POWER STATION

Room P-118 Phillips Building
7920 Norfolk Avenue
Bethesda, Maryland

Friday, February 18, 1983

The meeting convened at 8:38 a.m., Darrell Eisenhut, Director, Division of Licensing, NRC, presiding.

PRESENT FOR NRC STAFF:

DARRELL EISENHUT, Director, Division of Licensing, Office of Nuclear Reactor Regulation
ROGER MATTSON, Director, Division of Systems Information, Office of Nuclear Reactor Regulation
RICHARD VOLLMER, Director, Division of Engineering, Office of Nuclear Reactor Regulation
THEMIS SPEIS, Director, Division of Safety Technology, Office of Nuclear Reactor Regulation
Reactor Regulation
THOMAS NOVAK, Assistant Director for Licensing, Division of Licensing, Office of Nuclear Reactor Regulation
JAMES CONRAN, Reliability and Risk Assessment Branch, Office of Nuclear Reactor Regulation
ROBERT CAPRA, Technical Assistant, Division of Systems Integration, Office of Nuclear Reactor Regulation

PRESENT FOR NRC STAFF (Continued):

WAYNE HODGES, Section Leader, Section B, Reactor Systems Branch, Office of Nuclear Reactor Regulation
ASHOK THADANI, Chief, Reliability and Risk Assessment Branch, Office of Nuclear Reactor Regulation
EDWARD J. WEINKAM III, Licensing Project Manager, Division of Licensing, Office of Nuclear Reactor Regulation
RICHARD J. RAWSON, Staff Hearing Counsel, Office of Executive Legal Director
JOHN GILRAY, Quality Assurance Branch, Office of Inspection and Enforcement
FAUST ROSA, Chief, Instrumentation and Control Systems Branch, Office of Nuclear Reactor Regulation
JACK SPRAUL, Quality Assurance Branch, Office of Inspection and Enforcement
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RICHARD STAROSTECKI, Director, Divisionb of Project and Resident Programs, Region I
EDWIN J. REIS, Assistant Chief Hearing Counsel, Office of Executive Legal Director

PRESENT FOR LONG ISLAND LIGHTING COMPANY:

MILLARD S. POLLOCK, Vice President - Nuclear
BRIAN MC CAFFREY, Manager - Nuclear Compliance and Safety, Shoreham Nuclear Power Station
RICHARD GUTMAN, Maintenance Engineer
JAMES RIVELLO, Shoreham Plant Manager
JOSEPH KELLY, Field Quality Assurance Manager
TIMOTHY ELLIS, Counsel, Hunton & Williams

PRESENT FOR STONE & WEBSTER ENGINEERING COMPANY:

CHARLES ADER
GEORGE DAWE

PRESENT FOR ENERGY RESEARCH GROUP:

DAVID GOELLNER

PRESENT FOR SUFFOLK COUNTY:

LAWRENCE LANPHER, Counsel
GREG MINOR, MHB Associates, Consultant

PROCEEDINGS

MR. EISENHUT: Why don't we go ahead and get started. This is a meeting between the Staff and Long Island Lighting Company on the Shoreham Docket. We are keeping a transcript of the meeting to facilitate follow-up and discussions on it.

It is a discussion, generally speaking, of the approach, the methodology, the system that was used by the Applicant to classify structures, systems, and components as to sort of the care and feeding they get in the design and operation relating to their safety importance.

We had sent out a meeting notice a couple of days ago, and I understand you have a proposed agenda which I believe is going to address the basic elements of the subject we are discussing. I do not think any particular agenda outline is necessary except -- necessarily one or the other. I notice here you just handed me an agenda which looks like it covers the elements.

This meeting is a meeting that the Staff perceived a need for following a number of discussions recently that led us of course to resubmit testimony to the hearing. But the question is really broader than that, and the question and the discussion today I want

to caution is not a discussion of the testimony in the hearing. That question has come up a number of times. It is really a discussion of the basic approach, philosophy, methodology, whatever you want to call it, that was used by the Applicant to go about classifying structures, systems, and components that are important to the safety aspects in this plant.

With that as a very general description of why we are here, perhaps the best thing to do today, since I see a number of new parties here, we ought to all introduce ourselves, to take a couple of minutes.

I am Darrell Eisenhut, the Director of the Division of Licensing at NRR.

MR. NOVAK: I am Tom Novak, the Assistant Director for Licensing.

MR. CAPRA: Bob Capra, Technical Assistant in the Division of Systems Integration with NRC.

MR. HODGES: I am Wayne Hodges. I am in Reactor Systems Branch, Division of Systems Integration with NRC.

MR. ROSSI: I am Ernie Rossi. I am in the Instrumentation and Control Systems Branch of the NRC.

MR. REIS: I am Ed Reis. I am with the Office of Executive Legal Director of NRC.

MR. VOLLMER: I am Dick Vollmer, Director of

the Division of Engineering at NRC.

MR. MATTSON: Roger Mattson, Director, Systems Integration, NRC.

MR. SPEIS: Themis Speis, Director of Division of Safety Technology.

MR. THADANI: Ashok Thadani, Chief of Reliability and Risk Assessment Branch, NRC.

MR. CONRAN: Jim Conran with Systems Interactions Staff, NRC.

MR. KELLY: Joe Kelly, LILCO Field QA Manager.

MR. RIVELLO: Jim Rivello, Plant Manager.

MR. GUTMAN: Rich Gutman, Maintenance Engineer.

MR. MC CAFFREY: Brian McCaffrey, Manager, Nuclear Compliance and Safety.

MR. POLLOCK: Millard Pollock, Vice President - Nuclear at LILCO.

MR. STAROSTECKI: Rich Starostecki, Division Director of Projects in NRC Region I.

MR. NOVAK: Why don't we get the people in the audience?

MR. POLLOCK: George Dawe, Stone & Webster, our architectural engineering firm; and Tim Ellis, Hunton & Williams, who represents us in the licensing process.

MR. ADER: Charlie Ader, Stone & Webster here

in Washington.

MR. HAASS: Walt Haass. I&E, Quality Assurance Branch.

MR. RAWSON: Richard Rawson, Office of Executive Legal Director, NRC.

MR. ROSA: Faust Rosa, Instrumentation and Control Systems Branch, NRC.

MR. GILRAY: John Gilray, NRC Quality Assurance Branch.

MR. SPAUL: Jack Spraul, NRC Quality Assurance Branch.

MR. GOELLNER: Dave Goellner, Energy Research Group.

MR. LANPHER: Larry Lanpher, attorney in Washington, D.C., representing Suffolk County.

MR. MINOR: Gregory Minor, with MHB Technical Associates.

MR. WEINKAM: Ed Weinkam, Licensing Project Manager, NRC.

MR. EISENHUT: Good. Let me make a comment to the representatives of Suffolk County. At the end of the meeting I would like to entertain any comment you may have on the substance of the meeting we discuss today. I will alert you ahead of time.

MR. LANPHER: Thank you.

MR. EISENHUT: I understand, Mr. Pollock, you have sort of a presentation to go through and summarize this. And perhaps that is one of the easiest ways to get started, unless you or Dick have any other questions or comments in front of you.

MR. VOLLMER: No.

MR. EISENHUT: Mr. Pollock, why don't we turn it over to you.

MR. POLLOCK: Darrell, thank you. I will. You have said much of what I was going to start out with as general introduction. We are here obviously at your request to sit down in an effort to further define our operating philosophy and our operating approach to maintaining the integrity of the Shoreham facility and specifically looking at the non-safety-related systems and components in the plant.

I do have to say to you that I am troubled by the fact that the meeting was of such short notice that it has given us some difficulty in preparing a response. However, the people that have been introduced on my staff that are here -- namely, Jim Rivello, the Plant Manager; Rich Gutman, our Plant Maintenance Engineer; and Brian McCaffrey, who is a Manager of our Nuclear Compliance and Safety Group in my staff support organization -- will touch on, and I will change this

and call it as you did, an outline rather than an agenda.

It is an outline that we feel will address the agenda or the meeting notice items, not by the same terminology but to try to enhance and expand upon the programs that we have developed and will have in effect for Shoreham.

We did respond on December 16, I think it was. We submitted a letter to Mr. Novak's office, the Commission, addressed to him, that defined our approach to operational integrity of the plant. The programs that we have in place, and acknowledged the fact that they were broad-based as to description of preventive maintenance program, continuing maintenance program, and so on, that it was designed to say here is how we deal with the non-safety-related equipment because we are concerned about the integrity of that facility.

And I welcome the opportunity today, and I have anticipated that when we sent that, welcome the opportunity today to come in and have my people address in more detail what those programs mean, to try to define for you and demonstrate when we talk about surveillance or preventive maintenance in that arena exactly how we are approaching it and why we feel we have the confidence that we are maintaining the integrity level that should be maintained in the nuclear

facility.

MR. EISENHUT: Yes. Let me make a comment on one of the early things you said. First, we apologize a little bit on the short notice of the meeting. But on the other hand, we recognize you have sent us a letter a couple of months ago and we really are not looking for any new information today. What we are really looking for is for you to articulate the basic approach you have used in the past in the design and construction and the philosophies that you are going to continue this into operation.

It is something that is sort of the fabric that weaves through the whole plant, and we do not look at it as a subject where you have to go out and develop information. So, frankly speaking, I believe it is something that you ought to be accountable for, on call for, every day of the year when you operate the plant. So the short notice, because of the very subject we have got, really should not trouble you. We weren't looking for any more new information other than the philosophy you have been using. And I hope our questions in fact are not necessarily driving you to do something different.

I really want to understand the philosophy that was used and the philosophy that you have been

proposing so that we can understand it. That is really where we are coming from.

MR. POLLOCK: And my comments relative to short notice were ones more of time to put together, you know, the examples that would address the questions real easily. I have got the staff here, I have got the personnel that are responsible for our programs, for development of our programs, for the maintenance of the programs. And I feel quite confident that we will do just as you say, and we are coming down on your invitation with that full understanding that it is intended to be an open discussion and a back-and-forth exchange of information to try to expand upon what I said to Mr. Novak in that letter.

I would ask only if we can with our outline because with the programs that I presented in the letter there is a lot of basic management philosophy that is involved in that, and I would ask you if we could kind of go down through very briefly our outline agenda first and then -- there it is -- I am going to try to put a perspective on our philosophy too. So we would like to present that.

MR. EISENHUT: Certainly.

MR. POLLOCK: In the course of these presentations, and if you look at the outline, I have

asked the staff to go to work and address very briefly the functions of our corporate overview groups, and those are the ones responsible and interested in maintaining the integrity of that facility.

And those are such groups as you see on there: NRB, which is Nuclear Review Board; Independent Safety Engineering Group; Review of Operations Committee; Quality Assurance. And the staff will address those very briefly as to how they function.

I have done that in an effort to give you a better appreciation of LILCO's overall management philosophy relative to maintaining integrity of the total plant. And you will see that even though some of those are safety, safety, safety-related, as they define their functions, you will see that the philosophy that we have developed in our organization is they exercise their responsibilities in areas other than safety-related but into the non-safety-related aspects.

I would like to just touch -- and in the packet that I handed you, I guess to refresh your memories because it has been some time on our organizational structure. And, Mr. Eisenhut, I do not intend to go into detail other than on the structures you will see flagged in red or pink or whatever you want to call it, certain boxes. And that is just a flag

within my total organization, in the LILCO organization, where we have independence of review and scrutiny of our operations.

Let me just go down quickly the organization, total corporate organization from the president, as a refresher. Vice President of Nuclear is my office and responsibility, and I report to a Senior Vice President of Operations directly to the President. Obviously, reporting to me will be, is now and will be, the Plant Manager, Nuclear Operations Support, which is an administrative support group and a Manager of our Nuclear Engineering Department, which will be responsible for maintaining licensing plant design. Startup and construction will phase out as the job is done. Personnel from those organizations will be moved into various organizations.

Flagged in red on here, Nuclear Review Board, is a composite organization of in-house personnel of responsible disciplines as well as consultant personnel with appropriate disciplines. And Brian will touch on that function. That reports to me and is responsible to me to assure performance of the plant facility and the site facility.

As a reminder, our quality assurance organization in LILCO is independent of my office,

Corporate Quality Assurance, in that it reports up through the Senior Vice President of Engineering to the President directly. However, there was a functional line that reports to me so that the corporate quality assurance organization for maintaining integrity does report to me on a continuing basis. But there is a degree of independence that LILCO has decided to establish.

MR. VOLLMER: That partiuclar box has operational quality assurance responsibilities?

MR. POLLOCK: No, it doesn't. As we go on to the next box, I will show you where.

Now, let's say, no directly to your question, it does not have administrative responsibility for the operating quality assurance organization, but it has an administrative responsibility for audit of the functions of the operational quality assurance organization.

Functionally and administratively, organizational quality assurance reports to the plant operating organization, but there is a direct tie in our quality assurance, Corporate Quality Assurance Manual and description. So they are not divorced, and the overview responsibility and audit responsibility of plant functions by corporate QA flows down through operational. So it is functionally a hand-in-hand

working organization.

On the next chart, which is station organization, I won't dwell on the individual items. I think they are self-explanatory except to flag to you again now going down to the plant working organization for assurance. That is where the operational quality assurance organization reports directly with an audit function from Corporate QA and an interface.

Engineering compliance for engineering changes and technical aspects report to a technical support group and ROC, which is the Review of Operations Committee. It is a committee made up of the plant responsible operating management personnel, and they report to the Plant Manager directly. And Mr. Rivello will go into the functions of that group.

I just wanted to define again another level of performance assurance by these groups in the plant organization. We have three of them reporting to the Plant Manager to maintain the facility.

The next group, which is Nuclear Operations Support, which is a staff support organization, to me -- I wish to flag to you only the ISEG, or the Independent Safety Engineering Organization, which again is a safety and a performance assurance group reporting independently to Mr. McCaffrey. And he will touch on

their functions. And their assignment is to the plant. These personnel are assigned to the plant, not in headquarters, but they are responsible to the headquarters group.

In the Nuclear Engineering Department the only thing that I wanted to flag on there different than what you have seen before, Nuclear Engineering -- and we will be defining that briefly -- will be assuming on a transfer basis at the appropriate time responsibility for maintaining the design configuration of that plant and the present current project engineering organization, which is the engineering team I have currently reporting to construction management, will transfer to the Nuclear Engineering Department.

So I will be bringing that expertise and experience from the field relative to engineering design and construction into and maintain it in the nuclear engineering organization.

MR. EISENHUT: Can you give me an idea how big your engineering and your operations support staffs are?

MR. POLLOCK: The engineering support is going to be plus or minus 70. And I think we are 65, 60-65 or something like that. ASd NOSD nuclear operations support is between 30 and 40. And again, this is growing as we go along.

MR. MATTSON: Could I ask a question, to go at the relative roles of the people in the station organization in the nuclear operations support? I guess that is Charts 2 and 3. Let's say I decide to paint the blue which is in the plant green. Who makes the decision among these people on these two charts as to whether that is an unreviewed safety question?

MR. POLLOCK: I think if you will bear with me, when Mr. Rivello gets into a description of the ROC Committee, an assumption in our preventive maintenance programs, he will define for you the maintenance work requests, and Brian McCaffrey will define the interim design modification program which will show the flow of all information for clearance.

I guess I can answer your question by saying the Nuclear Engineering Department is charged -- well, currently, the field organization, Nuclear Engineering Department will be charged with maintaining integrity of that plant so that there will be a review cycle that will flow through the Nuclear Engineering Department on all changes and modifications.

And I think I will come back to your question, if I may, if you would bear with me and let me get into Jim's discussion of the particular items. I think it may address that.

MR. MC CAFFREY: I could just add to that. You will see 10 CFR 50.59 covers the plant themes, the ISEG themes, Nuclear Review Board themes, the engineering mod programs. It is all throughout those programs.

MR. POLLOCK: If we do not define that, please ask me again and I will try to redefine it.

The discussions on the items I have are outlined by my staff organization and will be brief. And then we will open it up, if you will, for further discussion. But they are intended additionally to convey to you a supplementary feeling to my letter to you, Mr. Novak, to try to establish the depth of the extensive preventive maintenance program that we have in the plant and try to define exactly how that has been developed.

I am troubled with our terminology of "preventive maintenance" when we discuss this with many people. Our preventive maintenance program, I think we will show you today, goes well beyond the basic meaning, if you will, of preventive maintenance from the point of view of lubrication and that. It entails inspections and surveillance programs, and Mr. Rivello will be getting into that. So hopefully, that will be addressing your comment to me of how do we go to work

and establish our levels of maintenance for non-safety-related equipment. So we will be getting into that.

These programs are developed with a thought in mind of the total integrated plant from the lowest level piece of equipment in the plant and its importance to safety, reliability, availability of that plant, up to the largest and most complex. And I think our discussion will define how we have approached each of those units for you.

It is developed how? By using expert personnel with a lot of experience and using the information that is available in the industry from the various sources that are available to anybody in an operating organization.

The two other things that we will touch on very briefly is the programs we will use as defined here: design control program, which is a future design control and modification control program to respond to who makes the decision on what color a widget is painted, how we handle that, and on our procurement aspect.

An overview, if you will, to try to put a perspective on the overall organization of how we are approaching it. And I would like to ask my staff now if

they would go down through the items on the outline briefly, and when we go through that, then we are prepared to respond to any of your questions.

Brian, I guess, are you picking up the first aspect of it?

MR. MC CAFFREY: Yes. I would like to move in to Item C on our outline now. And as Mr. Pollock said, the purpose for presenting an overview on these various layers of assurance that the company has in place is to give you a better image of how we think our philosophies and how we are not simply blinded to Category 1 but look at the plant in an integrated sense, as Mr. Pollock said.

With that, I am going to cover some examples of QA, ISEG, and NRB matters to give you that perspective. And Mr. Rivello, the Plant Manager, will cover the Review of Operations Committee and the OQA organization.

The Quality Assurance Manual for LILCO has appendices in it that cover other programs than safety-related strictly. Some examples would be: security; radiological environmental monitoring; fire protection; emergency planning; packaging and shipping radiological materials; and health physics.

I think it is safe to say the QA Manual itself

recognizes that there is something else other than strictly safety-related. The QA organization will also conduct audits for the operational phase, which is the purpose of this morning, forward-looking for the operational phase of this plant, audits of all CAT-1 and CAT-2 NDE activity at the plant. It will do audits of welder qualification for CAT-1 and CAT-2. They will audit the entire OQA program. And they will audit station document control programs.

That gives you some examples of what I think Mr. Novak, you are looking for in the QA area.

I would like to move on to the Independent Safety Engineering Group. I function as the chairman of ISEG. As Mr. Pollock said, I am off-site. ISEG is composed of six multidiscipline engineering personnel located at the site under a group leader. ISEG was operational in July of last year. Our procedures are complete, and we are in business. We are producing our function.

ISEG includes in their activities surveillance of plant activities, not limited to safety-related. To give you a feel for how ISEG is attempting to develop an overview and perspective on the entire plant, we have had our ISEG personnel attending the morning plant meetings with plant personnel to get a feel for

developments at the plant and potential areas for additional ISEG investigations.

We have had our ISEG people attend the corporate peer review meetings of the probabilistic risk assessments that have been performed for Shoreham to get them better attuned to such things as systems interactions and effects of non-safety-related upon safety-related functions and programs.

Now, as we know, ISEG was required by NUREG-0737 and that's why it was brought into existence, and ISEG is tied into the INPO CN programs where we get significant event reports and significant operating experience reports. And those are not limited to safety related.

I would like to give you four examples of projects that ISEG has done and the outcome of those in the non-Cat 1 area. There was a significant event report having to do with soldered joints and tube sheets in the loop oil cooler on the Cat 1 surface for a diesel generator.

The ISEG project that was started for this looked at 250 plants' Cat 1 and Cat 2 exchangers that may be susceptible to the same problem. They found two exchangers in Cat 2 service, and the outcome of that was recommendations to the plant for additional inspections of these coolers for corrosion and for suggestions on corrosion-inhibiting agents. That has been provided to the plant for upgrading and modifying their programs.

Another application was an evaluation of --

MR. MATTSON: Tell us the safety purpose of doing that.

MR. McCAFFREY: The direct safety purpose, of course, was to find out whether there were any

difficulties that this plant may be prone to Category 1 service, and we did that. We looked at all the Cat 1 applications. But in addition, the philosophy is to look beyond simply a Cat 1 application and see if that problem is prone to any other surface in the plant, and that strikes at plant availability, reliability and simply keeping the entire plant at a top level of performance.

MR. CONRAN: Is that the only Cat 2 item that -- did you look for this same problem in all Cat 2s?

MR. McCAFFREY: We looked at the same problem in all 250 heat exchangers of this type of fabrication that conceivably could be in the plant.

MR. EISENHUT: You said 250 is Cat 1 plus Cat 2.

MR. McCAFFREY: Yes, that's the total complement for the plant.

MR. EISENHUT: So that's all there is?

MR. McCAFFREY: That's right.

MR. EISENHUT: So you looked at them all?

MR. McCAFFREY: Yes.

MR. EISENHUT: How many Cat 2s were in that?

MR. McCAFFREY: I really don't know, but out of it came no Category 1 heat exchangers that were of this type of a design, susceptible to this type of a

problem. We did find two Category 2. Now, if we were simply limiting ourselves to Cat 1 we could have walked away from it and said that's Cat 2; we're not going to worry about it. So the purpose of this example is to show the attention to that.

MR. EISENHUT: You said you came up with suggestions to the operating staff?

MR. McCAFFREY: That's right. These are recommendations. It's not a suggestion; it's a recommendation. The formal mechanism is I send the recommendation to the manager of operations support; he then sends it to the plant manager, which was done. And at this point, that recommendation has found its way into Mr. Gutman's program here, and he has taken action.

MR. EISENHUT: Let's see. On the recommendations, then, is there any -- does the ISEG find out what happens to the recommendations eventually? And is there a formal track record?

MR. McCAFFREY: Absolutely.

MR. EISENHUT: So if half of them --

MR. McCAFFREY: We have a tracking system that I review at every meeting I run. I was supposed to have one today which we had to defer. But we have a tracking system where we log all the recommendations, wherever they have gone in the organization, whether they be for

engineering or plant, and track the disposition of those.

Now, the disposition of them in a practical sense could be an alternative recommendation that satisfied the intent of what were achieving. It doesn't have to be strictly a mimicked implementation of our suggestion. We will assure ourselves that the resolutions of our recommendations meet what we are after, so we have an absolute closure program.

MR. McCAFFREY: I guess your example establishes that your organization and your procedures call for you to look at things other than Category 1.

MR. McCAFFREY: That's correct.

MR. MATTSON: Well, let's focus for a minute on the Category 2 things that you looked at. You said found two of them that you made recommendations to fix?

MR. McCAFFREY: We found two that had soldered tube sheet joints in them.

MR. MATTSON: What were the two?

MR. McCAFFREY: I don't have that detal with me.

MR. MATTSON: When you looked at the two and you looked at the Category 2 generally, you said one of the reasons for looking at them is reliability and availability.

MR. McCAFFREY: That's correct.

MR. MATTSON: If you found a Category 2 system that had some safety function, wouldn't it take higher precedence or be insisted by your organization to be treated with greater respect than just any Category 2 system?

MR. McCAFFREY: Certainly.

MR. MATTSON: How do you do that?

MR. McCAFFREY: When you deal with -- you deal with it by having trained people, people that we have run through training programs, we have run them through a systems interaction training, we have had them read the Shoreham transcript on 7(b) to sensitize them to that thought process, and we have initiated additional investigations along those lines.

If I could, I would like to run through three more examples. Maybe it will resolve some of your questions.

MR. CONRAN: May I have one question first? Was the survey of the 200 Category 2 items --

MR. McCAFFREY: Cat 1 and Cat 2 total.

MR. CONRAN: Okay. But the Cat 2 part, was that at the initiative of LILCO or the resident inspector involved?

MR. McCAFFREY: The resident inspector was not involved at all. It was totally the judgment of the

ISEG group. These projects are generated by either myself or the ISEG group leader or any ISEG engineer to approve those projects as appropriate projects and the scope and philosophy of those projects. And that is how we then proceed.

If I may continue, there was another significant event report we reviewed, again through the INPO program, having to do with an air-operated solenoid valve on the service water system, isolation type valve that failed due to dissicant being entrained and carried through the system and fouling up the operation.

We looked at that situation and we evaluated Shoreham. Here is a situation where we found that LILCO's program had already anticipated such a development. We found that the dessicant for Shoreham was on a three-month inspection program, which exceeds the manufacturer's recommended period for surveillance. We found that Shoreham has frequent monitoring of filtering elements every three months and filtered differential pressure.

The outcome of this review was that ISEG confirmed that the plant was effectively anticipating this sort of problem and already found that they needed to make changes to their preventive maintenance surveillance programs, largely based upon LILCO

experience in these matters.

So there was an ISEG confirmation of a Category 2 type application.

MR. VOLLMER: Will we get into -- that's a good example, I think, but I would like to pursue at some time the mechanism by which those requirements in the system were originally established and what groups interfaced in determining the appropriate preventive maintenance.

MR. McCAFFREY: Mr. Gutman can handle that later on in the program.

The third example had to do with a main generator exciter hydrogen explosion. This was a significant event report and a significant operating experience report out of INPO. ISEG evaluated Shoreham, evaluated its susceptibility to the same sort of a problem and recommended the installation of a hydrogen detector system on the exciter alternator housing with an audible and visual alarm, both locally and in the control room.

At this point, that recommendation has been forwarded to Nuclear Engineering, and it is in the design process to have that installed at an appropriate time. And again, that is not a Category 1 application, strictly.

The last one I want to cover is a very broad project. That is, Shoreham has taken all the Fitzpatrick licensee event reports; not ones that have been screened from INPO as significant, but taken the base document from Fitzpatrick. Fitzpatrick being a surrogate plant, a predecessor, a sister plant of a Shoreham type design. For the purpose of considering the effect upon safety-related systems of all the events that happened in those LDRs.

To train the ISEG personnel for that screening and review program, we had meetings with Dr. Jocksimovich of NUS who is a member of LILCO's peer review group for the Probabilistic Risk Assessment, to sensitize the ISEG personnel to that philosophy and way of looking at things for precursors and to ultimately decide whether any of the events at Fitzpatrick give us cause to make changes at Shoreham procedurally or hardware-wise because of what happened there.

That project is well along. Out of the 550 that were screened, we ended up with about 55 that we felt warranted further investigation, and that process is underway at this point.

MR. CONRAN: You say you started with the base documents, all the LERs?

MR. McCAFFREY: That's right.

MR. CONRAN: And then you have taken out some and taken action on those.

MR. McCAFFREY: That's right.

MR. CONRAN: Is there any feedback on what was done by the Fitzpatrick organization? You know, as a followup? I assume you are doing this independently.

MR. McCAFFREY: We are doing it independently. I do know that the ISEG group leader has been talking with his counterparts up at Fitzpatrick. An example, if this would help, was there was one event at Fitzpatrick on an unmonitored radioactive liquid waste release through a storm drain system. We have evaluated that, even though it's not strictly safety related and will probably -- although, as I said, we are still in this process -- we will probably recommend monitoring the drainage from the oil separator pump system at Shoreham because of the problem that was found up there.

Does that help answer the question? We are in communication with them. We are in communication with INPO very, very often on most of our significant event reports and SOER evaluations. If we need more information, we want to know how INPO is thinking on a given situation, we will call them up.

MR. CONRAN: Well, I think you answered my

question, but I first thought you were using this also as a training process for your ISEG people, and I was wondering if it was done independently. And then there was a followup with hey, did we really miss any that we didn't catch as being significant? However, Fitzpatrick organization did, and they took different followup action.

MR. McCAFFREY: I'm not certain. I don't have any examples for you of that. I think that philosophy is a good one, but I wouldn't get to a confirmation of that until we come up with our discrete recommendations. At that point, it may be appropriate to go talk to them again and see what they did. But I think it would be improper to leave you with a feeling that this is a training program for ISEG.

There was a training program prior to the project, and working on this project in itself is a further enhancement of that philosophy.

MR. CONRAN: May I ask a question? I think those are very appropriate examples, and they help with understanding. With those examples you mentioned another activity, the PRA. LILCO has done a very broad-scoped PRA on the Shoreham plant that is, in our view, even beyond what would be required to be done by LILCO.

If LILCO had chosen not to do the PRA, not to address safety problems at LILCO or possible improvements at LILCO in that way, they could not have been required to do so. With regard to these Category 2 items, do you think that if you had chosen not to look at all the Category 2 heat exchangers, is that something that you could have been required to do under the regulations because that's within the Commission's purview of regulation?

MR. McCAFFREY: We are in speculation as to what we would have done. The best way to answer your question is simply what you are going to hear today; simply examples of LILCO's philosophy and mentality and way of doing business. The more examples you are going to hear, it's just the way we think.

We don't strictly focus on legal requirements. I believe a lot of this you are going to hear goes beyond that, like the PRA. And what I want to leave you with is this feeling of certain initiatives in many areas.

MR. POLLOCK: I think if I could interject a moment, I think your introductory remarks -- what we are trying to define and what I tried to define in my general letter to Mr. Novak is LILCO's management and corporate philosophy is not one of a hard line -- here

is an interpretation of regulation and this is as far as we go.

Our concern has been not just with nuclear, but every piece of generating equipment we have had in our system, and our total system philosophy is one of reliability and operating availability. And I find it very hard to dissociate those two words from safety, to go hand in hand. A totally reliable and available system is going to enhance the safety to a maximum extent.

So the philosophy that I have applied and my management has applied is that those plants will run to maximum perfection that we can achieve, and that means take the programs we've got and apply them. So you said could we be forced -- I don't even want to address it. I think that's a legal interpretation of regulation, and I am not even looking at it that way. That's why ISEG and Nuclear Review Board and the other group have been charged with, as you are specifically charged by charter, with safety equipment consideration.

You are not to stop there. You've got the technical expertise, you've got the operating knowledge and you consider everything that is peripheral and related. That's the management philosophy approach that we have taken to running this plant, and that's what we

try to convey.

MR. CONRAN: That approach I think came through very strongly in the couple of weeks of hearings' discussions. I'm not questioning that.

MR. POLLOCK: Well, even the PRA, as you say, wasn't mandated. It was our decision and election because we felt it better for the facility.

MR. CONRAN: In trying to understand your approach, though, we are a regulating body and we have to interface with you, and we have certain responsibilities so we have to have a certain philosophical approach. And one very important part of the philosophical approach, I guess you would call it, of the agency that has been emphasized considerably by our chairman, -- there has even been an organization created within the agency -- that addresses the sort of question that I was just trying to address with regard to how far -- what is the legitimate purview of interest of the regulatory staff.

We recognize a dividing line, the minimum set of requirements, and we are constrained from interfering or meddling with operations at Shoreham beyond that line. And I think that is good. At least we can't impose additional requirements without due process.

By the same token, we need assurance and we

have in our review process in reviewing Shoreham. I think it's necessary to understand where your understanding of that line is. And that's really the sort of thing that I was getting at in my testimony and in my supplemental affidavit. So I didn't mean to ask the question on a purely legalistic basis.

But, in fact, because of the context we work in, it turns out to be a legally related question.

MR. POLLOCK: I agree with you it is, and I guess there's a very fine line there that by definition, my interpretation is it's a generic issue. It's an industry issue; it's not a specific Shoreham-related issue. Reg Guides say -- and so on and so forth -- this is where you stop in your regulatory process, and then the plant continues.

Well, we don't accept that, and rightfully, the Commission has also acknowledged it shouldn't be. What we're trying to convey is wherever that line is, I don't care, we've got a classification of safety-related equipment and non-safety related equipment, and our concern is to look at the total plant as an integrated unit, an operating unit, from the plant safety, reliability and availability, and they all go hand in hand.

And that's the way we have developed our

program. I have heard terminology of graded programs and so on and so forth. Obviously, from the highest, most important thing all the way down to the least there is a degree of grading an approach to maintenance, and I think we will be able to define that for you today.

I don't want to get into the question with you today, and I think it is inappropriate for me to address where is that line; where do you stop and where do we start.

I hope we can convey, which we have started to do, ISEG is a safety engineering group, but their function goes beyond the so-called defined safety-related equipment. The Review of Operations Committee is a safety review group, and you will see that it goes beyond the Nuclear Review Board. To me it's a safety issue review and advisory group, but they are charged by me to go beyond that for the integrity of the plant. That's what I'm trying to convey.

So I really don't want to get into a discussion and I think it is inappropriate. You've got to tell me where the fine line is. If that's a question you're asking, I can't define it. I've got to look at it and say I have a classification of safety-related equipment. I have a plant to run, and our programs are set up to maintain the integrity of the plant. That's

what I'd like to try to define today, to stay away from that -- where is the line, the point of demarcation of where regulatory comes in or does not.

Our intent is to put together a program, convince you that we have one, to try to satisfy your concerns that we are appropriately looking at every piece of equipment in that plant in a reasonable manner.

MR. RIVELLO: If I could introduce one comment to this, the preventive maintenance program has its origins back in the 1974 and 1975, all preceding ISEGs and PRAs. The philosophy we have applied and are explaining today was in place back in 74 and 75. If we got some information from the industry that said they have had a probem with a particular type heat exchanger, that was processed. If it happened to be safety related then it was so designated. If it was not, it was entered into the preventive maintenance program, in keeping with that philosophy.

So it does go back to 74 and 75.

MR. POLLOCK: I think we will get into that if you will allow us to go through, and then we'll come back if you have further questions and address it. But I'd like to go down the pattern, if you will, of the groups we have in preventive maintenance and try to set for you the overall philosophy that we have established.

MR. STAROSTECKI: Can I ask a question? Who are the ISEG members today and who are candidates for the ISEG group?

MR. POLLOCK: Who by name?

MR. STAROSTECKI: By position more than by name. I'm saying two years from now, who is going to select the membership for ISEG and who really controls their charter, if there are revisions to the charter that needs to be made? Something is not working in the future and ISEG says, we think we ought to be able to do this better. How is the charter controlled? By whom is it controlled, and who controls the membership?

MR. McCAFFREY: The charter and all procedures are controlled by Bob Kubinak, the Manager of NOSD, and myself.

MR. POLLOCK: Controlled by, authorized by my office.

MR. STAROSTECKI: So any changes they have to bring to you?

MR. McCAFFREY: If there are significant policy changes, it would have to go to Mr. Pollock, and that's where it should go. The membership -- let me finish on the membership, to answer your question. The membership is six multi-disciplined engineers at this point. Again, philosophy, NUREG-0737 requires five; we

have chosen to have six.

We have also built into our program by the procedures the ability to go beyond the built-in expertise of ISEG and tap any other organization within LILCO to assist ISEG, and we have done that. We have Electrical Engineering Department, Nuclear trained people assisting ISEG on matters that involve relays and switches and projects like that.

MR. STAROSTECKI: Who are the six engineers in ISEG today?

MR. McCAFFREY: The group leader's name is Jack Alexander --

MR. POLLOCK: You are not looking for names? There are six specifically assigned personnel whose only function is ISEG. They are not people that have other functions. They are not maintenance engineers or operating engineers.

MR. STAROSTECKI: They are devoted to that group?

MR. POLLOCK: Yes, that's their one and only function. ISEG.

MR. McCAFFREY: They do not report to the plant.

MR. STAROSTECKI: I understand that. How do they get changed, and how do they go from one

organization to another. If they want a promotion or a lateral assignment, is there any impediment or is there any encouragement of that? I guess I am trying to say --

MR. POLLOCK: There's neither impediment -- the job is posted with a job description and qualifications and we take applications.

MR. STAROSTECKI: And their only responsibility is ISEG?

MR. POLLOCK: Yes. And not like ROC, not like the Nuclear Review Board which is the assignment of a responsible person. ISEG is a specific function, and that is their only function. It is filled on a qualification, established qualification basis. Within our company, the jobs are posted.

MR. McCAFFREY: Also, our philosophy is to rotate people through ISEG, take an experienced, trained person from Nuclear Engineering and put him on ISEG for a two-year assignment perhaps. It's not mandated; it's just our philosophy, but they have to meet the qualifications we deem appropriate for ISEG personnel.

MR. VOLLMER: You talked about the ISEG charter and scope of responsibilities as defined by you. Is there something which would tell ISEG when they have a problem with a Cat 1 piece of equipment or system that they should look further in the Category 2 problems, or do they do that on an ad hoc basis as they see it?

MR. MC CAFFREY: They are instructed to take any matter affecting the plant and decide upon its generic application to the plant. If we get in an issue on a certain vertical pump, we will look at all vertical pumps in the plant regardless of classification for susceptibility to whatever the problem was there.

MR. VOLLMER: So if they find an issue which they think could be generic, they are chartered to look at its generic application throughout the plant?

MR. MC CAFFREY: That's right. An identical philosophy as to how we will handle I&E bulletins, circulars and information notices. That is applied uniformly across the plant for any potential similar application.

Another example -- and that's not even in the same organization -- ISEG is not going to handle those as a line function, but that same philosophy will permeate the organization.

I think we should say, just for a moment, you can go over qualifications and all that, but there is an extensive record, if you are willing to read it, on ISEG, two or three days in November which cover a lot of the particulars on membership and the qualifications and all of that, if that would help amplify what you were seeking.

MR. VOLLMER: I think you said that the nuclear operations support was responsible for keeping a plant at a high safety-reliability-availability level. You're chartered to do that?

MR. POLLOCK: A nuclear operations support organization is an administrative support organization to me, and within that the ISEG group is chartered.

MR. VOLLMER: Plus a lot of other nuclear services and so on. My question is is there any -- you have nuclear maintenance there. You have what looks like some engineering functions in a sense. Is there any quality discipline in that organization, or do they call on the operational quality assurance or other quality assurance parts of the organization for any of that expertise?

MR. POLLOCK: They call on the other organizations, either corporate quality assurance or operational quality assurance, depending upon where they

are specifically addressing their efforts at that time.

MR. VOLLMER: So nuclear maintenance --

MR. POLLOCK: I did not go into that. Nuclear maintenance in this area is long-term maintenance planning. It is maintenance outage planning, systems load capability, when can the units be taken down and so forth. That's what I said I did not go down.

Nuclear maintenance, responsibility for nuclear maintenance is under Mr. Gutman. That is plant-specific function. That is the performance of nuclear maintenance. So I apologize. I was only trying to flag the overview groups and not get into a discussion of its function. That terminology obviously is poor in that respect.

MR. VOLLMER: Fine. Thank you.

MR. MC CAFFREY: If I may, I'd like to now continue and give you a quick overview on the Nuclear Review Board. The Nuclear Review Board has been operational since early summer of '82. It's comprised of ten members, five of which are LILCO senior management personnel -- Mr. Rivello is a member of the Nuclear Review Board -- and we have five outside consultants of multidiscipline backgrounds with extensive experience.

To date we have held five meetings. The first

meeting was held actually in April of 1982. We have on our own initiative begun a corporate readiness audit for fuel load. This corporate readiness audit will cover general corporate readiness and state of corporate support, procedure readiness, systems readiness and a number of other attributes.

This is a broad overview assessment of the plant's readiness for fuel load, and the ultimate recommendation will come from the chairman of the Nuclear Review Board who is the manager of nuclear operations support as well. So if you look at those charts, the manager of nuclear operations support is the chairman of the Nuclear Review Board. I function as the board engineer on NRB as well.

Our procedures are in place. The charter is done. I think an important point in nuclear review is that the NRB will conduct audits of the OQA organization and its programs, and it will also audit the independent safety engineering group.

MR. MATTSON: Where does ISEG report?

MR. MC CAFFREY: ISEG reports to me, and I report to Mr. Kubinak, who is also the chairman of Nuclear Review Board.

MR. POLLOCK: He is manager of nuclear operations support reporting to me.

MR. MATTSON: In NUREG-0737 it said "ISEG reports to a high level," or words to that effect.

MR. MC CAFFREY: Correct.

MR. MATTSON: This is then decided to be an appropriately high level?

MR. MC CAFFREY: Staff has found the organization reporting to be acceptable, that's correct. That is contained in the SER Supplement 1.

Okay. Continuing on the NRB, the NRB advises the VP-Nuclear directly. Some examples: we will review the plant changes and plant tests. We will hold quarterly meetings. The NRB will review safety evaluations under 10 CFR 5059. They will review proposed changes to technical specifications. They will review all the minutes of the review of operations committee and any reports out of ROC.

And to me, a key point in our charter that goes beyond the regulatory requirements, I believe, is to review any other matter -- and this is a quote -- "involving safe operation of the Shoreham nuclear power station which the Board deems appropriate." And that again is an example of the philosophy much like ISEG to look into any other matter that we deem appropriate that could affect the safety or reliable operation of that station.

Some examples of the audits that the NRB will conduct, in addition to the voluntary audit we have chosen to begin on operational readiness, we will do audits of plant performance, training, qualification of plant staff personnel, audits of the emergency plan and procedures, the security plan and procedures, the fire protection program, and again under the broad heading of audits, any other area of Shoreham operations considered appropriate by the chairman or the VP-Nuclear.

That covers the Nuclear Review Board.

MR. STAROSTECKI: Who are the members of the Nuclear Review Board? You mentioned yourself, Mr. Pollock. Who else?

MR. POLLOCK: I am not a member. The Nuclear Review Board is an advisory group to my office.

MR. MC CAFFREY: I am not a member. I am the board engineer. I am not a voting member of the NRB. The NRB is composed of -- would you like names or organizations?

MR. POLLOCK: Go down names and responsibilities.

MR. STAROSTECKI: I'm trying to get a flavor for what kind of people you put on it and what position do they have.

MR. MC CAFFREY: From electrical engineering

department within LILCO.

MR. POLLOCK: The chairman of the Nuclear Review Board is the manager of nuclear operations support reporting directly to me.

MR. MC CAFFREY: Mr. Kubinak is the chairman. The members of the NRB are Mr. Al Baker from LILCO's electrical engineering department; Mr. Don Binder, manager of nuclear engineering on your organization charts there; Richard Bowers from NUS Corporation, extensive background in health physics and the like; Bob Christianson from General Electric Company, extensive experience in plant startups and operations; Dr. Ray Crawford, formerly with SAI and now with NUTEC. Dr. Crawford also was a witness on some of the contentions in the ASLB hearings for us. Mr. Francis Duval, president of NUS Training Corporation; Mr. Frank Gerecke, manager of LILCO quality assurance department shown on your charts there. We've already covered Mr. Kubinak, manager of NOSD. Mr. Jim Rivello, plant manager, LILCO, is a member of the NRB; and Dr. Dave Rorer from Brookhaven National Lab.

MR. POLLOCK: The intent in the makeup of the Board was to give me a comprehensive discipline expertise, and that's why we put it together that way.

MR. MC CAFFREY: The resumes of all these

gentlemen are contained in the record from the November 16 or 17 transcript. The Licensing Board requested those resumes, and they are part of th[illegible]cord.

If there are no further [illegible]ons on the Nuclear Review Board, I wil[illegible] over to Mr. Rivello.

MR. RIVELLO: Th[illegible] Brian.

The Revie[illegible]f [illegible]ons committee is a group that is an advisory [illegible]ee to the plant manager, which is myself. Its membership consists of plant staff engineers. I chair the organization, and the members are chief operating engineer, chief technical engineer, and the section engineers in the following areas of work: operations, maintenance, instrumentation and controls, radiochemistry, health physics, reactor engineering, operating quality assurance and the station technical support manager.

We have in our charter the right to involve what we designate technical advisers. These may be other engineers on plant staff that are not full members, or they may be outside consultants, NSSS vendors, off-tech engineer personnel.

At the present time ROC has as technical advisers our startup manager, who is not part of the plant staff, and the GE operations superintendent, because of the preoperational and start-up testing phase

of the plant we are in.

ROC meets a minimum of once a month by tech specs. In actuality, we are meeting twice a week, and we are seeing many, many special meetings being called.

The normal functions of ROC are stipulated in tech spec Section 6.5.1.6, and they cover things like review of all proposed tests and experiments that affect nuclear safety, review of all proposed changes to Appendix A technical specifications, review of events requiring 24-hour written notification to the Commission. You could determine the remainder of them by checking out the tech specs.

Regarding the unreviewed safety question that was brought up earlier, in that same Section 6 of the tech specs, ROC is charged with the responsibility of rendering determinations in writing with regard to whether or not each item considered under the specifications A through E constitutes an unreviewed safety question. If the determination is made that we might be looking at a potentially unviewed safety question, the charter has us advising the NRB of that particular determination.

MR. MATTSON: I'm not quite sure I understood the words you used. Any change in the plant is reviewed, gets referred to you to make a decision as to

whether it is an unreviewed safety question?

MR. RIVELLO: That ultimately is true. I have not said that yet, but that is true. By tech specs we are required to review any station changes, procedure changes, tech spec changes in a safety-related area. One of those reviews requires us to consider whether it is in fact or not an unreviewed safety question.

MR. MATTSON: But that says -- so far all you have said is that if it is stamped safety-related widget, it gets sent to you to decide whether it is an unreviewed safety question or not, to change or adjust or whatever that widget.

What about the nonsafety-related?

MR. RIVELLO: A function worthy of note for this particular discussion is that at Shoreham ROC approves all station modifications -- "all" is underlined. We have chosen to do that, to make sure that the categorization is in fact agreeable to us.

MR. MATTSON: That's not in the tech specs?

MR. RIVELLO: No.

MR. NOVAK: That's a very burdensome position. When you say "all," you really mean all or do you mean any that are submitted to ROC?

MR. RIVELLO: All.

MR. NOVAK: Is there a basic operational

document, a worksheet or something that must be generated to perform some action? When you say "all," I just can't believe if you want to paint some portion of an office, that's an action being taken at the station. I would not expect -- I think it would detract from the function of ROC.

MR. RIVELLO: It has to be system significant. It has to be part of an operating system.

MR. NOVAK: Who makes that decision?

MR. RIVELLO: The decision is initially made by our technical support group.

MR. MATTSON: What procedures are they following to make that decision?

MR. RIVELLO: It would typically start with the maintenance work request which is a working tool in the plant. An observation is made or someone identifies the need for having something done.

MR. MATTSON: There's a place on there that you check that says this goes to ROC.

MR. RIVELLO: If it is determined to be a station modification that is being requested, yes, it goes to our technical support group which assures that it gets sent to ROC.

MR. MATTSON: What are the instructions to the people in the plant who originate these documents? What

are they told about whether or not one of these documents has to go to you?

MR. RIVELLO: They are told only on the MWR identify the problem, identify the need. They are not told anything about what to do with the next. It goes into the maintenance work request program which gets it to the responsible section head, which is a judgment call. Those section head personnel are then charged with the responsibility to determine is it merely a repair or is it in fact a station modification. If it is in fact a station modification, it is then sent to the technical support group. It is an easily determined fact, because if it's a station modification, he is in essence unable to fill out the data on the MWR to in fact accomplish the work. It just doesn't exist. He doesn't have existing procedures. He does not have existing mechanisms. So it would be rather obvious that it was a request for a change to a system, and it goes to tech support.

MR. VOLLMER: You could have a repair which was safety significant also, however. You could have a repair which -- how would that be handled?

MR. RIVELLO: That's handled by the appropriate section head.

MR. VOLLMER: And that may or may not get to

ROC?

MR. RIVELLO: It may not get to ROC, that's right.

MR. MATTSON: You could repair the emergency core cooling system without going to the Review of Operations committee?

MR. RIVELLO: That's right, because ROC has previously approved the procedures that are used to effect the repair.

MR. VOLLMER: But if it's a new risk procedure required, then it would --

MR. RIVELLO: It would come to ROC.

MR. POLLOCK: We get down into a discussion of the maintenance work request which are the preventive maintenance programs that may supplement your question.

MR. MATTSON: This question helps me understand a little bit about philosophy much better. Tom has gotten diverted down there to something else. Let me see if I can follow up on what he was interested in.

Tom and I have been places where utilities have said to us, boy, it's a burden for ROC. These are very important people who serve on this committee, and you can flood these committees with these paper and so many meetings that they can't do their normal job.

You've already said you're meeting more than you had anticipated.

MR. RIVELLO: Yes.

MR. MATTSON: Will it work in operations to have you review all of these things?

MR. RIVELLO: We feel so, and I think our more recent experience is worth talking about. We were having a problem. In the station modification program there is a mechanism for routing through the organization approval for that station modification. You need not have a committee meeting.

That began to become somewhat of a problem in the sense of the flow of paper and the timeliness of it, and we developed a very simple technique. Every nuclear plant that I've ever been at has a plan-of-the-day meeting every morning at some preset time. We just designated two days of the week as ROC meeting; and every Tuesday and Thursday at the conclusion of the plan-of-the-day meeting, we approve -- we have ROC sit for however long it is required and approve these things.

I was frightened to do it, quite honestly, because I wasn't sure of the volume, and it's worked out very well. Typically, it's a half hour to an hour.

MR. VOLLMER: Might ROC take a recommendation of somebody, either within ROC or out of ROC, to look at

a specific item without having the whole group dwell on it and look at his recommendations and act on something like that so you wouldn't necessarily -- every member of ROC wouldn't necessarily do an independent, if you will, review of a specific item?

MR. RIVELLO: Right. We have developed an authorizing system of subcommittees. We have subcommittes, and if we see that it's time consuming unnecessarily for the entire group, very quickly we will establish a subcommittee and say okay, you do your thing; come on back and then we'll talk about it at the meeting.

MR. CAPRA: Can I ask a question related to the unreviewed safety questions? One of the tests that is utilized to determine whether it's an unreviewed safety question is, in reading a part of 5059, is if the modification -- well, it says "determine whether an unreviewed safety question is involved is if the probability of occurrence or the consequence of an accident or the malfunction of equipment important to safety previously evaluated in a safety evaluation report may be increased."

I'm wondering if that language difference that we have presents a problem with your definition of "unreviewed safety issue" versus ours.

MR. RIVELLO: I really didn't intend to define an unreviewed safety question.

MR. CAPRA: Were we going to get into that later?

MR. MC CAFFREY: I will cover the section on design control program, and in there we will cover also the 5059 reviews.

MR. RIVELLO: All I meant to do was there is a section in the tech specs which runs alphabetically from A to O listing the responsibilities.

MR. MATTSON: We have been very generous in letting you follow your route today, but there is a difference here. He doesn't make the decision. He makes the decision. I think I would rather hear you answer the question.

MR. MC CAFFREY: The decision is going to be made in two places, because if you take the design side, you could have an MWR to implement the plant mod. It could be a plant-initiated mod or an outside mod, so the regulatory requirement comes along.

The 5059 review is going to be done by the engineering organizations and would go through with the design control package as the supporting document that that review was done in accordance with the regs. That helps cover the incoming piece.

MR. RIVELLO: That will go to ROC.

MR. STAROSTECKI: I have a problem. Sunday morning, 3:00 in the morning there's a problem at the plant. The operator picks up the phone and says I have got a problem, and the NRC comes back and says well, gee, what has ROC done with that problem.

The question is how does ROC function in a situation where, you know, it is off-hours and ISEG isn't there, and you've got to make some decisions.

MR. RIVELLO: You call a ROC meeting.

MR. STAROSTECKI: Which now gets you to the question of how do you interpret things and how do you view certain questions of increased risk or increased probability of consequences exceeding something or other?

All I'm trying to do is put you in a situation where maybe you can answer it, Dr. Mattson's question.

MR. RIVELLO: The technical expertise and experience level of ROC members is mutually agreed to by you folks and by us. It consists of operationally trained people, engineering-type people in the tech support group.

The processing of a station mod, or a procedure change, or a tech spec change is reviewed by this group of let me call them experts. If within their expertise they feel that the change being made is an

acceptable one and it is within their ability to approve it, it is approved. If we are looking at something we realize the expertise is not present in the room to make a fair evaluation of it, we would then advise nuclear engineering through Mr. Kubinak that we would need assistance in this particular determination.

So what you are depending on is the experience and the expertise of these people on ROC to make decisions which are in fact within their capability.

MR. STAROSTECKI: And the outcome of the decision then is what, to seek assistance from ISEG or some nuclear operations support?

MR. RIVELLO: Not ISEG. We would go to our nuclear engineering department which is our connection to the outside world. We would go to nuclear engineering. If they now have it in house, they will make the analysis. If they do not, they will go and get it.

MR. STAROSTECKI: Let me ask you at what point do you decide to go and shut the plant down or keep it running?

Do you wait for your consultants, wherever they come from, to give you advice, or do you make the decision in ROC because you don't understand the situation to take action?

MR. RIVELLO: I am not sure that the situations we're discussing had the relationship to run the plant or not.

MR. STAROSTECKI: I'm trying to get into a philosophical understanding, I guess. If you have a problem and you are faced with a 5059 review, who do you think ought to be making the decision to continue operations? Or whether you even have a problem of that severity?

MR. CONRAN: Aren't there circumstances where it might not come to a question of gee, do we have to do this?

MR. MATTSON: Let's not beat up on him with questions. Let him answer one question at a time.

MR. RIVELLO: The hypotehsized problem is one of we have an operating plant and we have some condition occurring that is causing us to decide whether to continue to operate or not. My first cut would be my tech specs. I might do an LCO. What does it tell me to do? They are rather specific.

If that, in fact, is the problem, I have a

solution, a pre-determined solution. So it's a decision to follow the pre-determined.

If it is not a limiting condition of operation, then again, you are facing the judgment of the plant personnel on ROC.

MR. MATTSON: For the purposes of today's meeting, we are most interested in the examples that might not be covered by the tech specs. Let me explain why.

The tech specs probably concentrate more on safety-related equipment than non-safety related equipment. I think in the use of the terms that we now have, we would think of tech specs as having mostly safety-related, but also some important to safety equipment rather than safety-related equipment.

So let's take Richard's example a little bit further and break it into two possibilities. The first possibility is that it is safety-related equipment and the question of whether it's an unreviewed safety question or outside the tech specs really isn't the concern here today. That one, most likely, is covered by some regulation, covered by some tech spec. He has got guidance in the wee hours of the morning and he can make his decisions fairly quickly.

Put those aside for a minute. Let's think

about some that are less obvious, maybe non-safety related equipment failures in the dead of the night. If they are equipment of that sort, then he probably hasn't got a tech spec problem. He may, but he probably doesn't. And he probably doesn't have a timing urgency. He probably has time to wait until his other folks come to work. Isn't that true?

MR. STAROSTECKI: I wish it were that clean.

MR. POLLOCK: I am searching like you are. I am trying to define what a problem might be, and I don't know whether it's tech spec or not.

Let's say we've got a condenser tube leak in the middle of the night, and we've got general operating procedures and order of criteria, which is plant operating philosophy that if we have a break-through in chloride, that plant will come down. That's not just Shoreham; that's operating philosophy throughout LILCO's generating system.

We know what chlorides will do to damage a generating system. I don't know whether that borders on tech specs. That happens to be in a tech spec, and probably things like that that do impact --

MR. MATTSON: But the decision whether to shut down for a leaky condenser because of chloride is not an NRC decision.

MR. POLLOCK: It's an operating supervisor's decision.

MR. MATTSON: What about the turbine bypass system? Is that safety related?

MR. POLLOCK: That's tech spec, though, isn't it?

MR. RIVELLO: Tech spec, non safety.

MR. MATTSON: Tech spec, non safety.

MR. POLLOCK: I'm having the difficulty you are of defining. I think if we could define, we could answer and say yes, the operating integrity of the plant is maintained.

MR. MATTSON: A negative answer here is instructive to the process we are involved in. If there is no equipment of importance that is non-safety related on which there is an urgent decision to be made, then there is no substantive difference between your definition of the terms and our definition of the terms.

MR. POLLOCK: I think we are there.

MR. McCAFFREY: That's the problem. The terminology causes the confusion, but we are after the examples of the function of how people thing.

It would seem to me, picking up on what Jim said on this philosophy that his trained personnel will use on this pre-planned tech spec question, I would

imagine they would consciously think, because of their experience and training and knowledge of the integrated plant, how a non-safety related component or system could affect a safety system. That has got to be part of the conscious process.

MR. RIVELLO: Let me hypothesize. We have a substantial steam leak in a reactor feed pump turbine piping somewhere. That's the message I get in the wee hours of a Sunday morning. To hypothesize a substantial steam leak in a steam system somewhere, I get a phone call from the watch engineer who is a licensed management employee advising me of the problem. Through discussion that ensues on should we continue to operate with the leak, is it substantial enough or minimal enough to allow continued operation until a more convenient time. Answer: no, we are going to cut the flange. There's the beginning of an ALARA problem because of the slightly radioactive steam.

The response and the decision that these two people would make would be to decrease power to 60, 65 percent power, and isolate that reactor feed pump. Much like a tech spec would say if you had a break pump problem. But that would be the decision.

MR. MATTSON: Interesting. You've just brought in a safety question into the thing. ALARA was

the safety question you brought in.

Now, let's say that it isn't you, and isn't you and it isn't any of us; it's 30 years from now and we have all gone on to the Happy Hunting Ground, and the people who replace us are trying to run this plant the same way. How will they know to run it that way?

MR. RIVELLO: I learned it over 20 years, and when I started in the business I didn't know all that.

MR. MATTSON: How will Shoreham's management control the operation of the facility through this system --

MR. POLLOCK: I'd have to answer that question through how do the people know it today. It's not a defined procedure; it is through training, it is through our operating philosophy and years of operating philosophy and maintaining the integrity of the facility. So it is training. And now I can get into our training programs, our operator training programs, which are not just specifically licensed-required training, but it is balance of plant training and operating philosophy. And that has always been a sound basis of developing the qualification of the personnel.

So, how do we insure it? It's exactly that way. Just the same way we have insured it with our people we have there today to make the decisions.

MR. MATTSON: We sent you a letter in response to your December 16th letter -- Mr. Novak did. The key phrase of which is that you have committed to implement an operational quality assurance program as required by GDC-1, commensurate with the importance to safety of these features.

That is kind of like us putting words in your mouth.

MR. POLLOCK: Quite distinctly.

MR. MATTSON: It would be nice if we had a piece of paper back somewhere that said you have those words in your mouth.

There's an uncertainty on my part -- has LILCO committed to use in operation the terminology "important to safety," even though you didn't necessarily design with that terminology? Or have you not committed?

MR. McCAFFREY: We have not committed.

MR. POLLOCK: We have not committed. I think we have it in testimony and what have you that our approach to importance to safety is that it is safety related, in our judgment.

MR. MATTSON: So if I follow that back to this example, when people are making decisions on non-safety related equipment in your plant of the type that we've been talking about for the last few minutes, they won't

have, to assist them, any tagging of that equipment as being important to safety or not important to safety.

MR. POLLOCK: Tagging meaning clearance?

MR. MATTSON: Some labeling somewhere on a drawing on the equipment in procedures somewere. They won't have benefit of a label for that piece of equipment that although it is non-safety related, it is under definition of the term "important to safety."

MR. POLLOCK: No, they will not. Nor, in my experience, and our studies in putting together our programs do we find that in the industry.

I do have to say to you --

MR. MATTSON: You're being a little too defensive.

MR. POLLOCK: I don't mean to be defensive. I want to get back and say there is not a tag that says "important to safety." But the training and the philosophy of the plant -- and I can't disassociate operating reliability and operating availability with safety. They are hand in hand. If you don't have an operating reliability level and an availability level, you are not going to have a safety level. And if you have a safety level, you are going to have a high operating availability.

So our philosophy is, by definition, an

interpretation of what does it mean to the operating reliability of the plant if that equipment is going to be, and the availability of that plant, and that manifests itself in a safety issue as well.

So I don't have a terminology of important to safety in that connotation, but I am trying to define how we approach it, which we think does address that concept of what is important.

MR. McCAFFREY: You don't need to agree on the terminology. That's where we continue to have the problem. I think Mr. Novak said it's the care and feeing. You can achieve the same assurance, I hope, in your mind, from the examples and the thought process and the programs that are in place and the feedbacks and the updates and all of that that should give you the sense of -- we don't ignore that other-than-safety-related. We don't have to call it important to safety. It has, obviously a certain importance, but I think we achieve the same effect by the programs we have.

MR. VOLLMER: I assume you do tag or have identification of safety related because you have to achieve compliance with Appendix B.

MR. McCAFFREY: Absolutely.

MR. VOLLMER: So we're talking about another set of equipment which somehow --

MR. POLLOCK: I'm not addressing --

MR. VOLLMER: Let me finish my question. Since you have one set of equipment and one category defined, then it's an absence of a definition of another category, and I think we're trying to grasp exactly how you treat that other set of equipment. Whether you have identified it or not.

MR. McCAFFREY: An example you will hear later is in procurement and control. You have to go back to the design phase of this plant to understand some of the philosophy about how that thought process was applied, and if you look at the design of the support systems that aren't strictly Cat 1, and look at the specifications that we used, let's say, to purchase the equipment, the level of requirements and inspections and certifications, whatever else, or qualities or codes that were applied to that component were based upon the design people, consciously evaluating its importance.

That process is going to be carried forward. When we go to buy replacement components, it will be brought to those same specification requirements or better. Whatever the codes have evolved to when 30 years have gone by and we are all in the Happy Hunting Ground.

That's an example of continuing that

philosophy forward. We still don't have to come up and tag things in a literal sense.

MR. VOLLMER: It's an unwritten management system or a written management system? Or does your system, as written, develop the approach that you are taking? From a regulatory point of view, I think Roger's question is appropriate because we're trying to understand how it carries down through generations of --

MR. POLLOCK: I think that's what I am trying to define as our management philosophy; how it goes beyond safety related. I can't find in the industry anybody who uses the "important to safety" terminology where they have been able to pull out and say these are the things important to safety. I can't define it. The Commission hasn't defined it.

I think we're all struggling with how do we determine, by definition -- I think it's wrong to hang a tag on something that's important to safety. I'll tell you what's important to safety, in an interpretation, is an operator who becomes ill on shift. Where do you start and stop with it?

So we are trying to look at our operating philosophy in total as its importance to that totally-integrated facility out there, as to how to perform in a reliable manner. To me, it ties very much

into safety.

I can't define "important to safety." I think the Commission is having problems and I have found nobody else in the industry that I have talked to, because we have been -- before I wrote to Mr. Novak I agonized with how do I respond. I found nobody else that said these categories exist.

MR. VOLLMER: I think we agree that more important than tagging things is understanding what are those attributes which affect plant safety and reliability, and how to treat them is the important thing, rather than tagging items. So I agree with you from that point of view.

MR. McCAFFREY: But it is based in written programs. What you have heard today, there are written programs. What we are embellishing here and amplifying on is the philosophy built into those programs. The same MWR program is going to be used for a safety-related or non-safety related component. The same procurement cycle will be used for safety-related versus non-safety related, and that is using specification requirements.

The ISEG procedures are written down, the NRB procedures are written down. You have to go behind that and see what that philosophy is by which you implement

it.

I believe the programs are well defined. It is the slant of the programs that you should be getting today.

MR. HODGES: May I interject an example and get your response as to how you would handle this one? You use a plant operating computer to tell you basically how the plant is operating, what kind of margins you have and you find that you've got a very conservative program in your plant computer and you'd like to take some of that conservatism out, as far as feeding information to the operator. So you modify the software for the plant computer.

Now, what would you do with that modification under 50.59, if anything?

MR. RIVELLO: It would be 50.59 analyzed to see what function it was -- conservative margins. You say margins; I think tech specs. I think General Electric company. You don't mean that kind of margin?

MR. HODGES: I mean margins to operating limits. Realistic operating limits.

MR. RIVELLO: That is when we would involve the technical advisor named General Electric Company. They would participate in that ROC analysis.

MR. HODGES: That plant computer would not be

safety related. It might fall under the category that we are defining as important to safety. If you are treating the two definitions the same, you would say that's not a safety-related piece of equipment, I don't have to treat it under 50.59.

MR. POLLOCK: But you said that would go to ROC for any change in software.

MR. RIVELLO: Right. On something that is bumping up against the safety related, a 50.59(e) would be appropriate.

MR. MATTSON: Maybe we are in Alice in Wonderland here. Let me try a different tack.

We've talked about how ROC makes a decision to call something an unreviewed safety question to make a reference on it and get assistance from a lot of people. How do you know what we have in mind? I mean, there are our regulations and we have a need to be informed, too. Look at it from the NRC's point of view. What do you decide NRC wants to hear? Whether or not you think it's an unrelated safety question.

Don't you ask yourself, as you make that judgment, will NRC agree with us?

MR. McCAFFREY: Yes. All those evaluations to me would be auditable by I&E. I would expect I&E inspectors to begin periodically looking at those.

MR. MATTSON: Yes, but you'd like them not to disagree with you, so you must want to know in advance how you think they're going to come out. So what would you turn to to know whether they were going to be interested in it or not?

MR. RIVELLO: I would think NRC has fairly cleanly defined unreviewed safety questions.

MR. MATTSON: In terms of important to safety, yes.

MR. CAPRA: That was a question I asked earlier. What I was trying to bring out was one of the tests is if it can effect or change a malfunction of equipment important to safety. Now, if you don't use the term "important to safety" I assume -- well, not assume, but I know from you said so far that you would read that as safety-related.

And those two things are different. So it's quite possible that what you perceive as an unreviewed safety question or do not perceive as an unreviewed safety question upon NRC review may be.

MR. McCAFFREY: But you would get multiple layers of verification of those reviews, as well. NRB will do a verification and audits of unreviewed safety questions. There are multiple layers that should provide that assurance.

But going back to --

MR. MATTSON: So if there are any differences, you view it that they are just matters that are important to us, but they must not be important to you, and if we don't like it we can fine you later on and you are willing to run that risk? Is that what I'm supposed to hear your answer as?

MR. POLLOCK: No, I hope you're not hearing that.

MR. McCAFFREY: What I'm saying is we are having trouble with -- and I think you're having trouble with -- formalizing criteria on "important to safety." But that shouldn't impede the conclusion that we have treated which you are effectively after. In the 50.59 reviews it is safety related and it's anything that can affect safety-related functioning. I think that cuts at what you're after. It doesn't make any difference what you call it.

But going back to the criteria, I have yet to see any Commission affirmed criterion guidance on what you would claim is appropriate for important to safety. I think we, in our own minds, have formulated a corporate philosophy of how we treat that difficult question.

MR. POLLOCK: I'd answer your question another

way. We look to the NRC representation as to the operation of that plant on a day-to-day basis, as the I&E personnel who are assigned to the site. And I would expect that they would be involved in any of the thought process. They would be cognizant of the fact that we've got an operating range, if you will, that we're interested in changing because the range we've got keeps taking the unit out on scrams, and if we could go with a different instrument range, it makes sense that they are going to be part and parcel of it.

Now, the Alice in Wonderland world -- will I&E look at it in the front end or will I&E look at it, as we are experiencing recently, only after we have gone through our evaluation, ROC review, signed off and so forth, as a working relationship? I would certainly prefer to have a continual dialogue, even on the development front and so that we don't get into a decision of this has been done, we do it, and then a confrontation -- I&E says this is wrong.

MR. MATTSON: Earlier, I asked you how you were going to preserve this 30 years from now, and you talked about the philosophy will live on, and it isn't necessary to tag things so that the person who has not yet been born yet who will be making this decision 30 years from now will make the right decision. He will

get it through his education, and God knows what nuclear engineering department will exist the, but he will do it.

I don't think NRC is willing to live with that kind of instruction to its yet unborn resident inspector, who will be looking over our shoulders 30 years from now in the manner you have just described. Let me tell you why.

These decisions aren't always peripheral equipment of no importance to safety that you can always get the resident inspector to affirm a few days down the road. We have had examples of where utilities knew of equipment that was faulty, that they were slow on the gun getting the information back to NRC, and when NRC had it, the plants were shut down. Either ordered to shut down, or confirmed shut down.

It's that kind of experience that led to things like Part 21 and led to better reporting over the last few years. LERs that are more numerous than scientists would like them, but enable regulators to make sure, to be able to secondguess the judgments being made day by day by utilities to keep plants in operation.

MR. McCAFFREY: You keep looking for the written program, and I think we are telling you we think it can work the way it works at LILCO. You mentioned Part 21; that's a good example. There's a philosophy on

what you report. 50.55(e) is a reporting requirement. The records of I&E clearly show that LILCO has reported items that are not safety related, due to their effect on safety-related systems.

A couple of years ago we recorded a potential rupture of the CO2 tank in the yard, and how under an earthquake situation when you might need your diesels you could potentially choke out the diesels. That's a clear corporate philosophy.

MR. MATTSON: That's a wonderful philosophy, Mr. Pollock. Your philosophy is the kind of philosophy we want to hear from people at your level. I don't quarrel with that a bit. Your philosophy of wanting availability and safety to go hand in hand and have an excellence of operation at all levels, that is super stuff. I wish everybody had that philosophy.

But what about 30 years from now?

MR. McCAFFREY: What do you believe is the solution?

MR. POLLOCK: I do not believe that philosophy is going to change in 30 years. I have 32 years of power generation at LILCO. I have been brought up with it, and it has not changed. It has developed and improved. I have brought many a fossil plant into service. I am struggling to get a nuclear plant in. This has been our philosophy since I started in '51 in power generation. That approach to, you know, can it change in the future, I can't argue what might happen in the future. I just say what might happen to engineering and everything else.

But we feel that the concerns with our philosophy that is developed, that will continue, that is committed to not just by me but by senior management all the way up to and including our chairman and board, will continue to exist in LILCO.

Now, certainly, if the Commission has got a serious concern that this will not persist forever, then you have got to give us some direction and say this is what you insist on, this is what it's got to be. We have got to look at regs that say here is the specific reporting criterion, here is our interpretation of where we should go beyond it, and we have and can demonstrate that we have gone beyond the specifics, the specific reg guide. And we think we can bridge that gap and will

continue to bridge it.

MR. MATTSON: I thought that that's what Mr. Novak's letter of January 10, responding to your letter of December 16, was attempting to do in its third paragraph: "Committed to implement an operational quality assurance program as required by GDC-1 of Appendix A for all features 'important to safety' as defined by the Staff for the Shoreham nuclear facility."

MR. POLLOCK: I agree, and I responded and said that it is contrary to my letter. That is exactly the problem I am having, is a specific definition of, I don't want to use "important to safety," but a specific definition and a staging. And we feel we have demonstrated in my letter, if you will, and we responded, I guess, January something to Mr. Novak that said if my understanding is that you accept what you have said in my letter, then fine, we are in agreement. And my letter did not state in the same words that you are talking about.

MR. MC CAFFREY: We are using different terminology in this paragraph. The interpretation of your letter, the interpretation in a meeting into Mr. Novak's letter is that our program as we described meets whatever your program requires whatever you call it.

MR. MATTSON: Let me see if I can move this by

another step. There are three documents that NRC looks at very closely when it licenses any facility. One of them is the Standard Review Plan. One of them is the Standard Tech Specs. And third one is emergency procedure guidelines. That is a little bit of you are in a transition period in the licensing of this plant relative to the emergency procedure guidelines. I do not believe you are fully implementing the General Electric -- oh, you are? Okay. So we are not in a transition period. We have been with some others.

Okay. Take those three documents. EPG's SRP, the Standard Tech Specs. Would you agree that any equipment that is listed in those three under my definition, my NRC definition of "important to safety," any equipment listed in those three things would be important to safety?

MR. POLLOCK: I have to ask you what is your definition? We don't have a Commission definition.

MR. ELLIS: I think I need to say something here. My name is Tim ELlis. I am counsel for LILCO.

We have been through extensive hearings, as you know, on the matter of "important to safety" and what its definition is. And I think the record discloses that there has been no formalization of items "important to safety" by the Staff. And there hasn't

been a requirement to compile such a list. And it wasn't a licensing requirement.

If we can somehow move the discussion away from terminology and if you can say are the structures, systems, and components in the Standard Review Plan and in the Tech Specs and so forth, would you consider or give hypotheticals in which they would do certain things with them? I think we could move it along.

But the ASLB right now has extensive findings and facts by the County and by the Staff and by us before them, and there is an extensive record on our views on the thing and also on Staff views. And I think it is very clear that there is no set definition of what structures, systems, and components belong in that category and what you do to them when they are in there.

MR. REIS: Let me say this. This is an interpretation of one counsel for one party of what is in the record. The Staff by sitting here and Staff counsel by sitting here doesn't agree that that is necessarily what is in the record.

And I do not think we are here involved in a little discussion. We are trying to find out what the plant has done and what will be done in the future and what the commitments are. And I think Mr. Mattson's question went directly to the point. How are you

treating, how are you looking at those matters in those documents he mentioned, to see how they are treated, how to assure in the future that they always get proper consideration?

MR. ELLIS: That question I think is right.

MR. MATTSON: Thank you for your defense, but I don't need it. Let me try another tack with the same question.

MR. NOVAK: Let's make it one more, and then we should take a break.

MR. MC CAFFREY: Also, we got ahead of ourselves a bit. We would like to get back to that agenda.

MR. NOVAK: We will finish this issue and then take 5 minutes.

MR. MATTSON: Would the ROC, when it does its work, pay any different attention to something because it was mentioned in the emergency procedures than if it wasn't mentioned in the emergency procedures?

MR. RIVELLO: No.

MR. MATTSON: Would it pay any different attention because it was in your tech specs than if it wasn't in the tech specs?

MR. RIVELLO: Yes.

MR. MATTSON: Would it pay any difference if

it was in the Standard Review Plan than if it wasn't in the Standard Review Plan?

MR. RIVELLO: No.

MR. MATTSON: I think answering from your point of view, I would agree with you.

MR. POLLOCK: Remember that we in our programs work to the FSAR and that is the basic document that we work from.

MR. MATTSON: That is a good fourth document to add to the list. Yes, good.

MR. POLLOCK: Instead of the Standard Review Plan and what have you, it is our FSAR, and that is what we are looking to. Again, I keep saying maintaining the integrity of that facility.

MR. MATTSON: Let me make sure the answer for the ROC would be. You would pay more attention to something as to its safety significance if it were treated in the FSAR?

MR. RIVELLO: If it were so labeled, we would have to, yes.

MR. MATTSON: But that would be based on your knowledge. It isn't so labeled. We have already talked about it. If it isn't safety-related, it doesn't have a label. Therefore, if it isn't safety-related and if it is in the FSAR, you have to rely on this philosophical

approach and this knowledge of the staff and what have you.

MR. RIVELLO: At that point, ROC in essence becomes a plant staff meeting. You switch.

MR. POLLOCK: And could I say, to answer your question, it is a broad question; in one respect it is specific. The function we have to get into, and I would be happy to pick one out, a function, and how we would address it and whether it is FSAR or it's not FSAR, it may get exactly the same treatment non-FSAR, not specifically safety-related because of the equipment and, let me say reliability of operation, as it would in the FSAR which has a safety cognizance.

I do not like to grade something and say that because it is not safety-related it is going to get less attention. And that seems to be an interpretation that we are paying less attention to something because it is not safety-related.

MR. MATTSON: I didn't mean to tag you with that. I appreciate your clarification.

Now let me just take what I was trying to do. On your side of the table you attached some significance to the safety of a piece of equipment because of its treatment in two documents you have just referred to, the tech specs and the FSAR. You have said no on the

procedures. Maybe after what I say in a minute you will want to think about that again.

Speaking as the Director of Systems Integration and not a witness in this hearing, at least not heretofore, speaking as the Director of Systems Integration, if someone were to ask me, and I will ask myself so that I can give the answer, what is important to safety from the regulator's point of view, I would have to respond the four documents we have just listed, important to me to safety, or I wouldn't be looking at them.

I am not an economic regulator, I am a safety regulator. So from that broad plane, standard tech specs, emergency procedure guidelines, not operating procedures but emergency procedure guidelines, FSAR and Standard Review Plan. If you have a piece of equipment that is listed in any of those four documents, you ask me if it important to safety, I will say yes.

If you have a piece of equipment that isn't in one of those four documents and you asked me, I will have to go talk to my technical experts and think about it a little bit before I give you an answer. To you, in your position on the ROC, if it's in the FSAR or it's in the tech specs, whether or not it's safety-related, I think you have said you attach some safety significance

to it simply because it comes from those two places.

MR. RIVELLO: That was not my answer. My answer was --

MR. MATTSON: I thought we had some agreement at least.

MR. POLLOCK: Could we take the break? I think we have all got a little bit of a difference hearing what you are saying, and maybe we can come back and clarify it real quickly.

MR. NOVAK: Why don't we start up at 10:30.

(B[illegible] recess.)

MR. NOVAK: Was there a residual response that you had to make to what we left of with just before the break?

MR. POLLOCK: Dr. Mattson, I understand the line of your questioning and your concern, and I am going to ask this if I may. We are not hung up on terminology, but terminology is a big thing involved in this whole issue of how do we assure what we are doing.

I would ask you if I could, could we hold this particular probing until we go down through our preventive maintenance surveillance programs and come back to it? I do feel that our management approach and program will tend to answer some of your questions, not all of them, to help us answer and further responsd to

that. So if we could, I would like to go on down, skip over what I have on our outline of design control. I would like to get into surveillance, maintenance, feedback programs which really are three prime areas of preventive maintenance, corrective, and the CILAR, and then the supporting documentation, how it feeds in and how we then evaluate, if you will, what kind of maintenance practices and surveillance practices we apply to all of the equipment, safety-related or otherwise.

MR. MATTSON: Yes, I think it helps before we come to a final resolution of what equipment to know what we are going to do with it once we have agreed on what equipment. So what I see we are doing now is leaving the question of what equipment and going to the question of what are we going to do to it once we have agreed on it, and then we will come back to --

MR. POLLOCK: What are we doing and how are we doing it, which I think will address some of your concerns, and then come back to it if we could.

MR. MATTSON: Agreeing to that shorthand, one of the major things we have to do before we adjourn today is either agree on what equipment or agree on a path by which we can eventually agree on what equipment. What we ought to be doing is finding some

common terms that you know that you are talking about and I know what I am talking about and we can say, yes, by golly, those are the equivalent understandings.

MR. POLLOCK: I don't think we can. But let us go through because I think what I am trying to say to you is we have a graded program to address all of the equipment in the plant and we want to try to demonstrate to you how we address it without listing this particular pump, this particular fan, and this particular something else.

MR. MATTSON: I didn't say it was.

MR. POLLOCK: Let us go through if we can.

MR. VOLLMER: So that we can understand what you graded and how it addresses those things that concerned us.

MR. POLLOCK: Let us try to develop that. Let us briefly go through these others and then come back to this point of discussion.

I guess, Jim, would you pick up then?

MR. RIVELLO: What we want to talk about at this point is the preventive maintenance program. Before I do that, I would like to define some terms because as I show examples of what is in the program, I will tend to use some terminology that you might not be familiar with or haven't heard recently.

By way of definition, a preventive maintenance program itself is a computerized schedule for equipment surveillance procedures, non-tech spec-required, and all INC calibration not tech spec-required.

Corrective maintenance program is that program to affect the nonscheduled, nonexpected repair. CILAR is an acronym that we have developed at SNPS, and it is a program which documents, reviews, and dispositions selected technical correspondence and bulletins; typically, I&E Bulletins, Circulars, and Notices, NRC reporting of events, GE, SILS, TILS, SALS.

MR. MATTSON: What's a TIL?

MR. RIVELLO: A TIL is a technical information letter. And a SIL is a service information letter.

MR. MATTSON: Both from General Electric?

MR. RIVELLO: Both are GE. A SIL typically addresses nuclear steam supply. A TIL typically addresses turbine generator.

CILAR also picks up on NRC requests for action or info, vendor correspondence, and any and all ISEG recommendations.

NPRDS, which I do not think I will mention, but it's an INPO-sponsored data bank per equipment histories. This is Nuclear Plant Reliability Data System.

NOMIS, NUS sole service which permits questions and answers between all participating nuclear plants. It stands for Nuclear Operations and Maintenance and Information System. It is a weekly exchange. I believe it is every Friday morning we call and respond to all the questions that have been asked over the last couple of weeks.

And SIL and TIL, I think we got to.

What I would like to do is talk about the PM prograr itself. In my opinion, it really is at the heart of the discussion today. A major point to be made regarding our PM program is probably that it is misnamed. I say this since many consider PM programs to be limited to equipment physical inspection and lubrication as the more traditional use of PM.

Shoreham's PM program goes much beyond this. The program is one which includes operational surveillances, instrumentation calibrations, special parts storage requirements, and any other items that we feel need to be performed on a repeating basis.

The reason this use of the PM program is developed is simply that the title "Surveillance Program" was dedicated to tech specs. So we used up the title "Surevillance Program." The reason we had done that was that we isolated all the regulatory required

testings and calibrations into a single program. This allowed preparation of the rigorous procedural controls and analyses required. So we got the surveillance program tracking and scheduling for us all the technical and environmental technical specifications tests required.

Obviously, as you have heard all morning, we are very sincere about plant reliability. That sincerity is what caused us to schedule all the maintenance operational tests and cals of all plant equipment. We expanded the PM program to do just that.

I would like to make the point that in fact what we have is we have got two surveillance programs. One is a tech spec surveillance program; the other is the remaining plant surveillance program. Unfortunately, I think, for many of us, we chose to call it a PM program.

MR. MATTSON: Wait a minute. I thought you said earlier that in the tech specs there is equipment that is not safety-related.

MR. RIVELLO: Yes, sir.

MR. MATTSON: So for equipment that is not safety-related, you could have two surveillance programs or you would have to make a choice for not-safety-related equipment as to which?

MR. RIVELLO: We don't make a choice. If it is required of us via the technical specifications, it is in the surveillance program.

MR. MATTSON: Then it is not in the PM program?

MR. RIVELLO: No. And what happens there is the rigorous controls are around changes to that surveillance. It is clearly defined. You don't just make a change on engineering judgment. You are dealing with a tech spec item. So we have isolated it. The surveillance program, rigorous controls to change.

MR. MATTSON: You don't just use engineering judgment, you use what else for a tech spec item?

MR. RIVELLO: We would have to go to NRB for an FSAR change, a tech spec change. We would have to consult you people.

MR. MATTSON: You would have to talk about whether it's changed something in the FSAR?

MR. RIVELLO: It would take that whole chain of events. So it bounds all of those kinds of things that today need many, many more people and organizations to concur in before the changes are made.

MR. MATTSON: What if you had something that wasn't in the tech specs so it's in the PM program and maybe through the PM program this thing won't hold oil, it keeps breaking down so you decide to replace it. And

you decide to replace it with something that holds oil better, but nobody stops to consider its effect on a Chapter 15 event.

MR. RIVELLO: That would be done as part of the purchasing, well, the design mod.

MR. MATTSON: But if it isn't in the tech specs, it's in Chapter 15 maybe but it isn't in the tech specs, how do you tell the person who is changing this piece of equipment that has done the PM and decided it has to be replaced, how does he know that it was in the FSAR, because the tech specs don't tell him?

MR. POLLOCK: You are suggesting it be changed with a modified piece of equipment, a change to the system, not a change out of --

MR. MATTSON: You decide to change it out. And it might not be a cooler, it might be a controller.

MR. POLLOCK: Well, cooler, controller, fan pump, whatever, to a different design specification.

MR. MATTSON: But it did enter a Chapter 15 calculation.

MR. RIVELLO: There are two mechanisms that either both catch it or individually would catch it. One is the procurement program. In the procurement, which we hope to get to, it will indicate that we maintain the plant as it was built or better. And that

cycle will cause the specification review and the balancing of the new equipment to the original specifications. That process will be there regardless of --

MR. MATTSON: Purchase specs. They go to the records, they look at the purchase specs, and they replace it with something that met the performance requirements as stated in the purchase specs.

MR. POLLOCK: That's equalled or exceeded the original specification.

MR. MATTSON: That is written down as a procedure for how these things will be --

MR. POLLOCK: Positively. And I am stretching my knowledge a little bit of the issue that you raised of going into a Chapter 15 calculation, whatever it was. I don't think that would occur in the example, but I may be mistaken. I don't think that could occur.

MR. MATTSON: Let's make it some other chapter.

MR. POLLOCK: Well, coming back to what you said, purchase specifications, and we can touch on that, the purchase specifications, we are committed to purchasing equal to or exceeding original purchase specifications. And there are specific procedures in existence, established.

MR. MATTSON: What would it hurt if your

procedure, in addition to that, said, Mr. Engineer, when you check the original purchase spec and look at the performance requirements, also check the FSAR and look at what we promised to do, if anything, in the FSAR with that piece of equipment?

MR. RIVELLO: That is captured under the station modification program. With this would probably be --

MR. POLLOCK: And that is part of the engineering review. The Nuclear Engineering Department, which is again, procedures being developed for us to take over. Right now we have Stone & Webster to support us until we go through the interim program. They will have the cognizant responsibility.

MR. MC CAFFREY: Maybe I could throw in right now, the station mod program, the program has been submitted to the Commission and described to the Commission. And just rattling off this full page of references, final safety analysis report --

MR. ROSSI: That is done for even non-safety-related equipment.

MR. MC CAFFREY: Everything. You will use these references for your mod program no matter what is coming through.

MR. HAASS: For non-safety-related, would you

keep purchase specs for, say, 30 years?

MR. POLLOCK: Original equipment in the plant, purchase specifications are maintained in the permanent file.

MR. HAASS: Even the non-safety-related?

MR. POLLOCK: Yes. All goes to -- I believe it goes to our SR-2 filing system. I want to go to work and replace a grading or a platform in steel. Go to original specification for design and design drawing. So that's not just Shoreham.

MR. MATTSON: Does that include emergency procedures, that list?

MR. MC CAFFREY: As a specific reference?

MR. MATTSON: Yes.

(Pause.)

MR. MC CAFFREY: No, it doesn't.

MR. MATTSON: I think you might want to consider whether it should. I can think of a hypothetical situation. I can't name an example where in checking that list of references there might be a piece of equipment that is culled out in an emergency procedure as a backup even to a preferred mode of handling an emergency, that the piece of equipment in question is mentioned and some statement is made about it that it will be green. And if the guy who wants to

paint it blue, if he is not reminded to check what he emergency procedure says about it, he might make a mistake.

Enunciator lights are examples of equipment that are not safety-related. We think they are important to safety, that are not in the tech specs, that could get changed out.

MR. MC CAFFREY: I think --

MR. POLLOCK: I don't want to avoid your question, but we have procedures on everything we do in maintenance and replacement and repair to check procedures and check operating procedures and redefine and modify operating procedures, if in the event we put in a different type of control circuit.

MR. MATTSON: But it should be listed in that list. It may have been an inadvertent omission.

MR. POLLOCK: This is the interim design modification program to go to Nuclear Engineering Department. I am referring to the plant procedures that support a lot of the basic documents that they refer to.

MR. RIVELLO: It's not a matter of --

MR. MATTSON: The procedures should be in this list. You're saying they have something more complete at the plant. This thing --

MR. MC CAFFREY: But the plant personnel,

senior plant personnel, are part of the Design Review Committee concept that is in place for this. So the Nuclear Engineering people may have done the design, but there is a Design Review Committee.

MR. MATTSON: I am confused as to what organization is there. Let's back up to first principles. When you make a change in the plant 20 years from now, you have already said you look at the purchase specs to make sure that the change meets the original intent of the equipment to the extent that the purchase specs speak to that. You also say you will look at the FSAR. I think you also said procedures is an important thing to look at.

MR. RIVELLO: That's correct.

MR. MATTSON: The reliance placed on this piece of equipment, if any, in the procedures is the same for the new piece of equipment as it was for the old piece of equipment. Or, if not, you change the procedures to reflect that. I mean if it is a blue enunciator versus a green enunciator, all you have to do is change the procedures.

MR. POLLOCK: I guess I have to answer your question directly no. We do not look at emergency operating procedures in that vein. But the performance specification outlines how that piece of equipment has

to perform to perform its function in the emergency procedure.

MR. MATTSON: That's fine. I just want to know in nuclear operations how do you assure that when you change a piece of equipment you have not created a glitch where the guy in the control room --

MR. POLLOCK: Changes in equipment flow through to procedure review as to what is the modification on tat procedure and how it impacts procedures. Procedures will be appropriately modified. That is a backflow. That's not the front end.

MR. MATTSON: That's good. But there may be a reliance in the emergency procedure or the operating procedure that should have been factored into the choice of the new piece of equipment. You just said you did it at the back end. Shouldn't you do it at the front?

MR. POLLOCK: I said that's the front end in the specification.

MR. MATTSON: Maybe if your specs are perfect.

MR. POLLOCK: Our specs are perfect.

MR. MATTSON: But they were written before your procedures were written, so you know they are not. You bought the equipment before you wrote the procedures.

MR. POLLOCK: But the procedures are also predicated on a reliance of that specification to.

MR. RIVELLO: You wouldn't rely --

MR. MATTSON: I must admit I have gotten back to the before-break conversation to the point we did not agree on, which was emergency procedures. So why don't we move on. I have made my point.

MR. RIVELLO: I would like tomake a couple of points. I brought with me some examples of the preventive maintenance program in action. The pink sheet is what we call a scheduled activity worksheet, which I did not define. It is merely the output of the program which comes out on either a monthly, weekly, or an on-demand basis to advise the appropriate sections that they have a precommitment to do certain activities in that following week or that following month.

This particular entry into the PM program came as the result of an I&E Bulletin 79-09, which was tracked by our CILAR program when we received it. The bulletin itself addressed a problem with some GE type AK 2 circuit breakers and safety-related systems.

Upon the conclusion of our review -- and we responded to NRC -- we did not have such a breaker in the entire plant. However, it was our opinion that we had a breaker very much similar to it. So our response to NRC indicated that, okay, we don't have it, but we forwarded this particular response to our plant staff

for incorporation of the applicable corrective actions in the plant maintenance procedures. That's what got into the CILAR program.

MR. MATTSON: The one you had, was it in the safety-related?

MR. RIVELLO: Non-safety-related.

MR. MATTSON: This is another example. I gather the evidence you are putting on the table here today is example after example of where you are doing the right thing for safety in non-safety-related equipment. And that's what this example is supposed to be further exemplary of?

MR. MC CAFFREY: That's right.

MR. RIVELLO: What happened there then, it was assigned, it goes to its cycle. This cycle requires obviously some plant management review, section head, chief operating engineer, myself. We approve the recommended action before we actually implement it. And then it goes through the rest of the cycle for implementation.

What was done here is we took these two breakers, one of which was the field excitation breaker and the other I can't remember which it was at this moment -- recirc MG sets.

We entered the existence of the concern about

these two breakers into our station procedure 35051, which addresses general 4KV breaker maintenance. We also created a SAWS for entry into the PM which calls for at least every 18 months to do a preventive maintenance on this particular breaker.

Another case in point is a SIL that was issued by General Electric Company regarding some problems with the regenerative heat exchangers in the Reactor 1 cleanup system. They had leaks in the head-to-tube sheet area. The recommendation was a flexitalix gasket installation. It was put into the CILAR tracking program.

And the results were interesting in that we did an industry survey beyond this particular SIL and found that the flexitalix gasket was merely an interim fix and that some other utilities that were further along into the problem had in fact installed the seal ring, a welded seal ring, in lieu of the flexitalix gasket.

That's exactly what we have done. We have made that particular change. And here I am going to ask Rich to help me.

This is the MWR that effected the repair. The point I should make about the SAWS is that you need feedback to the program at its conclusion to say this

particular task was completed. In a case like this, this would probably now erase itself. So we use it to track jobs like that.

In the operation surveillance area we have got some additional examples of how the PM program is used. And just to show general techniques of work, here is a preventive maintenance SAWS kickout for turbine generator oil tank level. It is done on a once-a-month basis. It is done in accordance with the procedure in this case. And this is the procedure.

And we have other examples of checking the alarm check valve, off-gas compressor, check water gong works, following valves are locked, isolation branch headers. Again, the loop must close. And again, the frequency is 1 month.

This is another procedurally controlled SAWS or PM, and it is merely operating a system 15 minutes to observe locally proper operation. And it talks about the related activities regarding some several MOVs that should function. Procedurally controlled and documented, back to the PM program.

We even use it, a traditional practice in power plants is to alternate redundant pieces of equipment that are normally in service to extend the lifetime. We use it to remind us to rotate the

equipment so that we don't overutilize one piece of equipment and use up its lifetime before we have used any lifetime of another piece of equipment. Similar activity, it is merely bumping a pump to observe smooth operation, a monthly cycle.

I mentioned earlier corrective maintenance, which is an unplanned or unscheduled repair. The controlling mechanism is called the Maintenance Work Request. I didn't bring any examples with me. But again it is a multi-part form, and it is used to provide the administrative controls for the identification, performance, and documentation of maintenance on both safety-related and non-safety-related components.

It assures us that the cognizance of supervisors is in place regarding control of the work affecting the plant status, any required permits which may be required, and the appropriate use of procedures before any work is done.

It is also used as a working tool for many of the items coming out of the PM program where we feel that the complexity and nature of the work is such that more procedural control is required than might be for some other pieces of equipment. So it is used to assist the implementation of the PM program where that section head feels that it is required.

The combination of the PM program and the Maintenance Work Request program is what we use to develop our equipment history files. Right now it is being done manually because the two computer programs need to talk to each other to exchange information, and we seem to have some inability to get that done.

MR. MATTSON: While you are talking about computers, all of the changes or the examples I have heard you list are hardware. Aren't there changes that occur in the software associated with the operation of the plant that get subject to the same control? What about the programming of the plant computer? That's non-safety-related equipment. How do you control changes there? That document, for example, that you were referring to a few minutes ago that listed the FSAR?

MR. RIVELLO: It might simply be a Maintenance Work Request, if it was a simple software change that was causing some --

MR. MATTSON: I guess I would be satisfied if you said what you have been talking about applies both to software and hardware changes, you just happened to give an example of software change.

MR. RIVELLO: I accept that answer.

MR. POLLOCK: Instrument controls equipment is part and parcel of that preventive maintanence program.

MR. VOLLMER: You mentioned your surveillance program had, I think you said a couple of times, rigorous controls were used. Would you try to tell me the difference between the controls applied to the surveillance program and those applied to the preventive and corrective maintenance programs?

MR. RIVELLO: Yes. The rigorous control is in the sense of in what aspect? All surveillance testing must be trended. All surveillance testing is procedurally sent to our technical support group, lead engineer compliance, who is obligated procedurally to overtly make a trend analysis, overtly do other things, to overtly file it here.

In the case of the PM program we obligate our section head, our responsible section head, to do the same thing. However, it is not as rigorougly procedurally controlled. He need not absolutely generate a trend filed in this manner. He does, however, do it. That's a key difference.

MR. VOLLMER: So the procedure requirements in the surveillance program, which are a little different than the procedural requirements here, there may not necessarily be differences in the outcome? Is that what you're saying?

MR. RIVELLO: Yes.

MR. MATTSON: I think that would have to be true if they are right in their maintenance that they treat safety-related and non-safety-related essentially the same. The reason is because not all safety-related equipment is tech spec'ed. Therefore, there is safety-related equipment in the PM program. So whatever is required for safety-related equipment is what dictates from a safety point of view what is done by the PM program. And I think their claim is that the PM program doesn't then distinguish between safety-related and non-safety-related.

MR. RIVELLO: The PM program includes scheduled activities on safety-related components, but it does not require trending.

MR. MATTSON: Because they are not tech spec'ed. You only apply trending to the things that are tech spec'ed.

MR. RIVELLO: However, for a safety-related component that is controlled by the PM program, the program we just talked about is in place. However, I can assure you that in all cases that activity is procedurally controlled, the physical activity.

MR. VOLLMER: How do you sort out the various quality assurance -- various Appendix B requirements between these programs which have safety-related and

non-safety-related equipment associated with them? We are talking about maintenance, surveillance and so on. Or do you apply the same -- I mean is it universal application or do you somehow -- you seem to say you don't parse out between safety-related and non-safety-related. I asked the question before on the application of Appendix B, and you said you limited or at least you assured compliance for safety-related equipment to Appendix B, which of course you must.

Where does the other stuff fall out with regard to quality assurance? What do you establish as your quality assurance requirements for those non-safety-related items as you go through maintenance, preventive, corrective, and so on?

MR. BIVELLO: In the maintenance of non-safety-related items coming out of any activity, MWR PM, we do not involve QA in that actual activity. I have to double back to explain what operational QA does involve. It does not get involved because an MWR was issued or a SAWS out of a PM was issued. They get involved from an audit overview aspect. And what I probably should do is double back to the OQA piece which we skipped, to explain what haopens there. If no one minds, I will do that.

What happens is OQA needs to audit the plant

staff in many of its activities, activities like Maintenance Work Request program. They schedule an audit for the week of April 1 to 4 or whatever. That's a short week. They will come in. They audit all of the maintenance work activity, activity in that week, totally disregarding what equipment was worked on. They just look at the Maintenance Work Request program, or they will do the same thing for surveillance.

MR. VOLLMER: What do they audit it for?

MR. RIVELLO: General program performance.

MR. VOLLMER: What program?

MR. RIVELLO: Maintenance Work Request, preventive maintenance program, maintenance section activities. We schedule audits for general administrative controls of overall plant activities.

So what will happen is they will go in there because of safety-related. We want them to look at a program which potentially and does affect and involve safety-related. But we send them in to look at the program. They will do that. They will generate comments on non-safety-related. The difference, the only difference, is if they find a problem with a safety-related component, they issue a finding in keeping with how do we implement Appendix B.

If they find a problem with

non-safety-related, they issue an observation. This is included in our audit report. And typical -- I just grabbed a few sample observations where they apparently were looking at our document control, and they indicate that master drawings G-11-XYZ, G-11 being non-safety-related, are not being maintained per station procedure 1224, whatever.

Another one, they are looking at the PM program. There there was no safety-related activity; however, they did see a problem on failure of one of our administrative people to sign off on the hard copy as required by station procedure so-and-so.

Another area, they were looking at the master punch list that controls the job site right now. They were looking at administrative controls of startup to us, again for safety-related reasons. However, they found in some usage of the MPL in a non-safety-related area an update form was not being used by some personnel per station procedure so-and-so.

The areas that typically get covered in this broad overview are housekeeping, PM, Maintenance Work Requests, fire protection system, control of lifted leads and jumpers, and tagging controls. So when they come in on that administrative overview, that's when we get the look-see at these programs by them.

MR. HAASS: There is no basic inspection, is that what you're saying? It's just an audit?

MR. RIVELLO: When an MWR is issued, all MWRs are reviewed by operational QA. The difference, if it is up front safety-related MWR, OQA is in series with the actual work. If it is non-safety-related, they are sent copies of typically insufficient time to get involved if they see a need.

MR. VOLLMER: Let me get clear the types of things they are supposed to look at.

MR. POLLOCK: May I address a question I am concerned about? I think whoever it was down there that asked, there is no inspections made then. There are inspections made, and there are by our administrative management policies and philosophy of all the work that is done on that by responsible management personnel.

In the non-safety-related area, there is specific maintenance procedures where the foreman first-line supervisor or his supervisory engineer or the maintenance engineer does the inspections, does the field inspection. We are applying a quality approach, if you will, a controlled approach to all of the maintenance in that plant, be it safety-related or non-safety-related.

Now, the operational QA personnel are

designated to do the inspections in the safety-related work areas. So I felt what you asked was no inspections are done? They certainly are, and they are done in the same vein. The documentation is different, but there is responsible qualified personnel above and beyond the workman who does the job. We don't put a turbine generator back together, we don't put a bearing in there and put the seals on any covers on until that first-line supervisor or the GE field service engineer or the maintenance engineer signs off and says the seals are in right and they are not in backwards and the bearing has been put in properly and not in backwards.

And each step is inspected, but not by a QA/QC engineerin the plant in non-safety-related equipment. So I just felt that we were saying we don't inspect our work. That's not the case. And again, trying to convey our management philosophy throughout, that's the way it's carried through. That's the break in operational QA as to where they function on an inspection basis.

MR. VOLLMER: It seems to me what I am not hearing, it seems to me it's important from our point of view to understand for those non-safety-related systems, components, whatever, when they go through modifications, surveillance, preventive maintenance or what have you, that there is somehow a conscious

decision or understanding of what attributes or features of that have safety relevance and that those are preserved through the process of maintenance, modification, and so on.

And it seems to me what I am hearing, and I may be wrong, is that you set these things that are not safety-related in another hopper and you pick them up after the fact but nobody before the fact addresses any safety relevance or features of these items of equipment and so on when you go through the maintenance process and the modification process. Maybe I am hearing wrong.

MR. POLLOCK: I have to say you are, and I have to constantly come back to the development of our maintenance procedures and programs, and I am going to use the word "reliability," if you will bear with me. The same connotation of safety.

It is considered, when we go to work to pull a turbine generator bearing -- what is the reliability? What is the safety to the piece of equipment? Let me use "safety" in that vein. If that bearing is not pulled right, the clearances are not taken properly, the coupling alignments are not made up right and aren't put back. All of that consideration is given to a piece of equipment before we approach it, and in the feedback process and all of their maintenances, what were the final clearances? What were the final face-to-face dimensions on the thing? What were the final torqueing or bolt stretching? All of that feeds back into the maintenance process. So equipment safety is certainly looked at.

MR. VOLLMER: That is a great example if one were to equate safety and reliability in worrying about the clearances and learning about how the various pieces are put in. If there was any question of safety and reliability, then you would have answered my question.

I am not sure that that equal sign exists, and I think that's part of the problem I have. The process I think I understand and I agree it's appropriate.

MR. POLLOCK: I may have missed one point. Let me back up further before we go into that turbine or do a bearing. The total system is looked at as to what

does it mean to the system. Can we come down on a hot standby on the reactor and hold it because we are going to do that bearing? Or what is the magnitude of the work?

Well, it may be two days, but it may be two weeks because we've got a problem in there, and a conscious decision is then made and an evaluation. I think that reflects back in our maintenance process to total plant safety, and I say again, we look at the total plant process whenever we plan work or decide to do it.

MR. MATTSON: What documents do you use as you do the looking? The same list that he read?

MR. POLLOCK: Same document, same control documents.

MR. MATTSON: FSAR?

MR. POLLOCK: The MWR program -- I have to ask Jim to go back to the details again, but the same MWR program.

MR. MATTSON: But when you make a decision as to what the importance is of what you are about to do, back in this planning stage that you were describing, how do you assure that you have thought of everything, about the importance? What documents do you rely on?

We talked a half an hour ago about

change-outs, and there was a list of things that included the FSAR but did not include the emergency procedures. Remember we talked about that? Would you look at that same list in deciding all the implications of -- or making sure that you have thought of all the implications of what you are about to do that you are talking about here under a maintenance program?

MR. DAWE: I might say that you are putting an over-reliance on the documents and an under-reliance on the total knowledge that the plant staff has of the plant. I think the FSAR and the tech specs and the emergency operating procedures and so forth are very, very good high point documents. These people also have the design documents, they have the operating system descriptions.

MR. MATTSON: Let me explain why I'm doing that. Mr. Starostecki left. For the next 30 years you are going to live with Mr. Starostecki and he's going to make sure you continue this high level of performance well beyond any minimum level of safety assured in the licensing process. Or he will twist your arm to do better.

We are the licensing office; we have to make sure you meet some minimum level. No question there are things important to safety that you know about that I

don't even think about. I am an audit reviewer. I sit in Washington, I don't have one of these plants right at my feet to twiddle and bang on day by day. There are going to be differences in the way you see it and I see it, and your responsibility is to operate it safely.

You are to understand what is important to safety. We are trying to reach some understanding that some minimum level of important to safety has been agreed upon in this licensing process and is appropriately documented so that it will be carried through for the operating life of the plant. Lists like what things people will consider when their licensing documents are very important for us making that decision.

MR. McCAFFREY: I have an answer to the one we hit on before.

MR. MATTSON: You are defending yourself against -- you think I am impuning your professional and technical ability. That ain't what I'm doing. I'm talking about sufficiency for a licensing decision.

MR. McCAFFREY: I have one list, if you will. Let's go back to the design Mod program. I didn't produce this; it was produced by the engineering organization. That's why I wasn't totally familiar with it. But I browsed through the Mod program, which, again, was presented to the Commission. Under the

design input package is included but not limited to, among other things, one, interfaces with other plant systems.

Another point in here is that the design review committee that I explained consists also of the chief technical engineer or the chief operating engineer of the plant; people who have intimate knowledge and understanding of how things relate to one another. And lastly, -- not lastly -- I find under the maintenance engineer, the INC engineer, the operations engineer, words like "insures that station procedures within his area of responsibility that are affected or required by the station modification are reviewed, revised and written as required."

I think that cuts at what you were after when this Mod package goes through. The cognizant people in the course of reviewing that program, which ultimately gets implemented through the MWR would review it in light of effective station procedures.

MR. MATTSON: That's close. If I were from the Division of Human Factors, which I am not, and I were looking at it from the operational aspect of the plant, if I would take their posture I would also want to know that that guy had a vote. If that turkey was about to change a piece of equipment that made it more

difficult to operate, that I had a voice to argue him out of it and make it easier to operate.

MR. POLLOCK: Those people are members of the Review Operations Committee and have a vote.

MR. MATTSON: The words you read sounded like he had to make the modifications, whatever they were, and he had to accept it.

MR. POLLOCK: The operating engineer is a member of the Review of Operations Committee.

MR. MATTSON: Dick, I interrupted. I think I advanced the ball. You were headed in a QA thing, not in a design change.

MR. VOLLMER: Most simply put, where I am headed is to try to understand how what we're talking about is a compliance with General Design Criteria 1; that is, how those things that are not safety related but have safety attributes -- since we don't want to use the "important to safety" connotation -- how they get quality assured during plant operation.

And that's why I was probing for, in your discussion, how a post-auditing of these programs would achieve such compliance without before the fact, going in and knowing somehow what the safety attributes, if you will, or the functional ability of that equipment that had safety relevance was examined beforehand and

carried through the program.

MR. RIVELLO: Quality assurance, that I think we are all groping for, comes from the section head, the plant manager. The fact that decisions are made prior to performing maintenance on certain pieces of equipment that are non-safety related and Review of Operations Committee prepares and approves working procedures.

I think that's the quality assurance that we all feel. The PM program says do not forget to look at me every six months, 12 months, 18 months. So for one, the program says come look at me. The people that run the plant look and say when I call upon myself to do that particular task, do I consider it of such complexity that it requires procedural control?

In a case like circ water pump, CRD drive pump, yes. And we've gone through and pre-planned all of that activity such that everything has been thought of and we have directed the people to the proper reference documents, we have called on them to say we're very interested in getting the equipment history form filled out to maintain the history, and we stipulate the acceptance criteria. Either they are not found in here, or where they are found.

So the thought process that is in place I believe provides the quality. Then the overview of QA

on programs is the assurance that we are, in fact, doing all of those things that we said we would do. When we were called upon by the program to work on a circ water pump, did we, in fact, have a procedure? Yes, they did.

MR. VOLLMER: You say this gives you -- by using the reference document -- some conscious determination, maybe not parced out -- a lot of it may be reliability, but you were saying that in fact, what you get is a conscious determination of those things that are of safety relevance in that equipment, and the assurance that they will be maintained throughout the program?

MR. RIVELLO: We typically look at it in the sense of reliability, importance to us to maintain the plant operating well.

MR. VOLLMER: I agree. It may be a fine point but I keep hearing coming back to the reliability. And I say well gee, that's fine, and that may totally get it. But it doesn't answer the GDC-1 question which should be a conscious focus on safety for those non-safety related items, too.

MR. POLLOCK: There may be a link that we did not touch on adequately or appropriately. We have been talking about maintenance and repair and put back together. It's the operating surveillance which we

consider a very key issue in guaranteeing quality, and those are operating procedures, a periodic bearings, packings, oil flows, is equipment running properly and performing on a per shift basis. And that feeds back on a documented basis for analysis by the technical organization at the plant.

MR. VOLLMER: What I'm saying is I'm not sure that this doesn't get exactly the safety stuff we are talking about. It's just that I'm not sure.

MR. McCAFFREY: Wouldn't you concede that the very people that are close to the plant, like Dr. Mattson says, who bang on it each day, the people who understand it intimately and obviously, inherently in their thought process, that went into the development of all these programs, there's got to be a keen understanding of its relative importance.

You won't find that laid out in the discrete program that says you shall consider relative importance. But a man who is trained and knowledgeable in Shoreham and understands the relationship of one system to the other, he just does it in the normal course of his work. It's got to be there.

MR. HAASS: Will he see all the subtleties? There are aspects of safety he might not see on a day-to-day basis.

MR. McCAFFREY: Mr. Haass, maybe you can give us an example. We have described a lot of programs, but I have yet to hear of a flaw in the program where it does not address a fundamental concern on how we treat it.

MR. HAASS: I think the question here is, are you really addressing the safety aspects. I think that's the question, and we are not hearing an assurance that your system does address that.

MR. RIVELLO: We don't address the area that we are discussing today in the context of safety. We look at the entire plant, and based on the qualifications of personnel, the programs in place, we make good engineering judgments as to how best to maintain that equipment.

MR. VOLLMER: And oh, by the way, you get safety because of that?

MR. RIVELLO: Yes. The concomitant thing in doing all of these things is you get safety.

MR. VOLLMER: The safety is a fallout from your process?

MR. RIVELLO: Yes.

MR. POLLOCK: That's not correct. It is a very conscious thought process by the qualified people, and I have to go back to your question. You say do we

have procedures. Who would write the procedures. It's those qualified, coginizant people that we have in the plant, and our management functional procedures that we have. And the functions and responsibilities of those people address safety.

So, is there a document that says this is the safety aspect, this is the realibility? No. Do those people -- are they cognizant of safety? Positively. That's their job, that's their training.

MR. MATTSON: The point Walt was making is the answer we got was they stay, kicking the tires day in and day out; they see the plant, they know its operation, but Walt Haass was making the point ah, but there are Chapter 15 events, for example, or other accident situations that don't happen, God willing, never, but they certainly don't happen day by day.

Will, over a period of time, cognizance of the importance of a piece of equipment, maybe a tertiary system to the functioning of safety equipment, be lost because the FSAR relevance of the equipment is not by procedure, continually brought before the person making the judgment about what to do?

MR. POLLOCK: I have to say to you no, it will not be. And I believe because of the preventive maintenance or surveillance programs we have which

identifies all of the equipment and the intensive training programs that I insist the personnel do go through for qualifications, are management approaches there to assure forever, 30 years from now.

MR. McCAFFREY: Let's take FSAR. Even in NSOD in our training programs, -- we have training programs for everybody in the nuclear organization -- we require that all people that come in get indoctrinated into it, become familiar with such things as the Code of Federal Regulations, the FSAR, Chapter 15. That is built into the whole process. Those are required by procedure; that indoctrination and training and familiarization.

There in that training is where the details and the philosophy gets carried through.

MR. MATTSON: So you should not be reluctant -- it is like putting a caution statement in an emergency procedure guideline. You should not be reluctant to -- a small, little box on the side of a preventive maintenance program or a QA program or a design control program that says incidentally, folks, 30 years from now, as you are making changes, remember how this stuff might be treated in the FSAR or the emergency procedures, or the tech specs.

The reason you shouldn't is because you are saying they already know that.

MR. McCAFFREY: That's right. I think they would do it anyway.

MR. MATTSON: Your claim is they do it anyway.

MR. McCAFFREY: That's right.

MR. POLLOCK: In the preventive maintenance program, all safety-related equipment is specifically flagged, and that automatically draws attention to it. So your question is addressed on the remaining equipment.

MR. VOLLMER: Yes. Your operational QA also is in ROC; correct?

MR. POLLOCK: Yes.

MR. VOLLMER: What is his role, since I understand ROC reviews your MWRs?

MR. RIVELLO: Oh, QA reviews all the MWRs. ROC will look at all the MWRs on station Mods.

MR. VOLLMER: Okay. And QA reviews them after the fact?

MR. RIVELLO: Before the return to service of the equipment.

MR. VOLLMER: This is operational QA that looks at those?

MR. RIVELLO: Yes.

MR. CONRAN: If, as a regulator, say as an IE inspector, one wanted to go verify bits and pieces of what has been talked about here today, would LILCO

consider it appropriate for an I&E inspector to inquire into any aspect of the operation that we have talked about so far, including a review of QA on non-safety related things?

Verification is a part of the regulatory function. Now, this gets into the area that we talked about before.

MR. POLLOCK: Would I have some objections to a potential finding that he might have? He may have an issue. We have never denied nor said to date that a man does not have a right to look or question a particular function. I guess I would have to say to you no, I would have no objections to it. He is there, and I respect his function being there.

As to question the integrity and our method of operation in the plant, he may very well raise a question of a plant manager -- hey, you know, what are you doing down in that area to precipitate a discussion. They may have a difference of agreement. Then we get to the point, the fine line, of regulation. But no.

MR. MATTSON: Implicit in your question, Jim, is the premise I think that NRC inspectors are forbidden from looking at non-safety related equipment.

MR. CONRAN: I have heard that.

MR. MATTSON: Rich, can you elucidate us headquarters types on that?

MR. STAROSTECKI: Not in my shop. They have freedom.

MR. MATTSON: I've never understood you to be so limited.

MR. POLLOCK: We have never seen that limitation.

MR. CONRAN: I didn't say that NRC forbad it. I said that when they try to inquire into non-safety QA areas they were told --

MR. STAROSTECKI: They may be told that by licensees. Sure. It depends on who you talk to in the licensee's organization. That's why sometimes you have to elevate to a high enough level to resolve it.

If you get that from -- you can expect to get that from a number of people, but you've got to look at where they are in the organization. Sometimes you will get that from contractor managers, sometimes you will get it from a licensee manager.

MR. MATTSON: If I&E wants to look at anything, if the region wants to look at anything in a plant, it can look. If it gets a little flack from some level in a plant, all it does is elevate it. The NRC can look at anything in an operating plant that it wants

to look at. There is no limitation on I&E's ability to look. To fine or take action, that might be debatable. But to look, there's no limitation.

MR. POLLOCK: I don't think we have an issue. To answer your question directly, no. I expect that.

MR. McCAFFREY: We look at I&E as the people who verify implementation of commitments. This is a commitment. We would expect someone is going to go verify implementation of that commitment, so it's --

MR. CONRAN: That's an important point because specifically, with regard to safety-related stuff in the SAR, that is submitted under affidavit and there is every reason to believe that it is so.

But a part of the regulatory function is to pick out pieces of it and verify it and to have it recognized as having the authority to do that.

MR. POLLOCK: I think you are right, and we are talking about how do we identify management philosophy. We have looked at the overall scrutiny by everybody, by every organization. Not only NRC. I've got PRC, New York state -- PSC on the property that are going to be there permanently, and he's looking at everything. He's looking at my cost control, my budget control, my scheduling control, how long are we out. You know, you say well, what right do you have to look

at that? Well, they do, so -- you know, I don't want to admit to it, but I will look and say that's another line of scrutiny to address the adequacy of a management philosophy and a management approach.

MR. CONRAN: I'm still not sure that the thrust of my question got through. When you answered my question you said, I have never raised an objection to date. That's not quite the answer I was looking for.

MR. POLLOCK: Only because we are in a construction phase, and not operational.

MR. CONRAN: In general, we have talked about examples so far and we can probably talk about a lot more where we agree. You would not disagree that we could come in and audit.

MR. POLLOCK: I would certainly not.

MR. CONRAN: Okay. It is not reasonable to postulate a situation of Shoreham operating for 40 years and in the area like we're talking about where judgment holds sway, LILCO's judgment and NRC's judgment is not going to be different. If it comes down to a point like that and NRC says, whether you disagree with me or not, I have the authority. Do you acknowledge the regulatory agency's authority to audit in the areas that we are talking about here? Not that you don't have an objection so far, but if you ever did have an objection

do you acknowledge the authority of the agency to -- is that within their legitimate purview? That's the question.

The reason I ask is because when you use the words differently than we do, that's one implication. One way that we establish or stake out the legitimate purview of the safety authority of the Commission is because we undertand and use the term "important to safety" a certain way.

MR. McCAFFREY: Aren't you getting a little ahead here? That to me reads like the issue before the ASLB as to authority and requirements.

I think we're getting to the point of enforcement, now, of a program and we haven't even gotten to a point where anybody is claiming that we haven't implemented the program.

MR. CONRAN: It's important because it's in the operation of the plant that any potential hazard becomes an actuality. The design and construction we can disagree, we can misunderstand each other. There's always time to catch up and understand each other later. In the operation of a plant, that luxury does not exist. So it's much more important that we know that we understand each other.

I think it's very important. Where is that

line between us? We don't push beyond it, you don't encroach, you don't do less than what that line says.

MR. POLLOCK: I guess I've got to ask you and ask our attorneys in the hearing process -- I think one of the big questions is that outstanding generically is where is that line. And I'm not about to give you that answer today because I don't know where it is.

That is something that I think has to be addressed appropriately by whatever proper procedures are. It's a logical question, but let me say I think inappropriate to expect a response from me to that.

MR. CONRAN: As long as it's clear on my part. That's the important question. There are two different ways you can approach the answer to that question. One is you can say I use the language the same way that you do, and that gives me a pretty good confidence like that because we are dealing in good faith that we know where that line is.

The other way we can do it is to talk endlessly about examples until finally sort of by an audit review process we decide well, we have talked about a statistically valid number of examples now, and we have been reassured on each example, so everything seems okay.

There's two different ways that we can approach the answer to that question, and I think that question, at least for my part, that question is what is at the root of the concerns I have expressed in my affidavit.

MR. MC CAFFREY: That's a more appropriate question to address to Mr. Starostecki. He's going to be the one to verify implementation of this commitment. I assume he'll develop some ground rules and criteria and come after this plant in due course to assure himself that these commitments, not made idly, have been implemented.

MR. REIS: The Staff has to testify at the hearing, and no matter what the Board will find, the Board looks to the Staff's advice as to whether it is satisfied, and the Staff needs an input outside the hearing process before we get to the hearing process from the Applicant as to what they will do and how far they think we can go, where they think they are controlled, and where they think they are; so that we can formulate our position that we will bring there.

Now, there may be a final legal position to be developed by the Board and by the Commission in the long run, but in the meantime we need some information from the Applicant so that we can formulate a position; and I think that's what we're trying to get to here.

MR. MC CAFFREY: I think we're getting there. We are hypothesizing in the future on some potential disagreement.

MR. STAROSTECKI: Let me give you an example. Where I'm coming from is I guess you've got things classified as safety-related and nonsafety-related, is that true?

MR. MC CAFFREY: That's correct.

MR. STAROSTECKI: So you look at the world and see the safety-related or nonsafety-related in that plant. And safety-related, I guess in simple terms, is

as defined in Part 100 or related to a design basis accident type of philosophy. And that is written down, and you've got structured programs, policies, procedures that say here's how you treat those things. Where is the structure and the definition that affects non-safety equipment?

MR. MC CAFFREY: That's the whole program we have described all day.

MR. STAROSTECKI: You defined it all day, but this is subject to change next year? Can it change?

MR. POLLOCK: None of our programs are static programs, in management and plant operation. Have programs changed in operating plants over the years? Of course they have. Have definitions of safety-related equipment or safety systems changed over the years? Of course they have. Yes, it can change, but it would be changed under administratively controlled procedures. We don't just arbitrarily change them.

MR. MC CAFFREY: The company has made a commitment there in the nonsafety-related area. That is a commitment like any other commitment. And if we were to even consider digressing from that, I would think the company would have a moral obligation to come back to you and talk to you.

MR. STAROSTECKI: Let's talk about 5059

reviews in nonsafety-related areas. Is it possible for you to do a 5059 review if you've already determined that it is not safety-related?

MR. MC CAFFREY: All station modifications will undergo a 5059 review, period. You don't just say it is safety-related or nonsafety-related and stop. You will do the review, period. It has to be part of the design package. It's an integral part, that conscious review and evaluation was performed.

MR. STAROSTECKI: But what I'm trying to anticipate is somebody in the future is going to audit your 5059 reviews and say okay, how have these people been doing? If your very definition of nonsafety-related says it's not associated with a design basis accident and the 5059 review in essence is saying are you affecting the consequences of the probability of that accident, will the auditor find that since this is nonsafety-related to begin with, it doesn't require any further 5059 reviews, or will he find a technical description of the thought process he went through?

MR. MC CAFFREY: He'll find the technical description of the thought process and how it will not affect the safety functions components Part 100 guidelines. Otherwise, you could say it is Cat 1 or not Cat 1 and walk away from it. That's not the thrust as

we understand it. It's broader than that. It is the effect on as well.

MR. STAROSTECKI: We will have to do some more auditing.

MR. MATTSON: Where are we?

MR. RIVELLO: I had some very impressive CILARs to go over, but I don't think it's necessary.

That I believe concludes what we suggested was item E on the agenda, to the extent I think we should all agree we should be done.

MR. MC CAFFREY: I think we also touched upon aspects of D&F as well.

MR. VOLLMER: You talked about the commitment. I assume the commitment you are referring to is Mr. Pollock's letter, the second page, bottom of the first paragraph, "For the remaining plant items," so on and so forth, "the quality assurance controls are appropriate to overall plant safety and reliability." And the two sentences that follow that. That is what you consider your commitment, and you consider that the programs you have described here today are a demonstration and a mechanism for meeting that commitment, is that right?

MR. POLLOCK: That's correct.

MR. MC CAFFREY: In other words, when the

letter was sent in, you obviously did not have the benefit of detailed understanding of the programs, the depth of the programs, the philosophy of the programs, nor some of the discrete examples. That was the purpose.

MR. VOLLMER: And getting back to my previous discussion expressing my concern with, for example, General Design Criterion 1, I felt reasonably good about these words as reflecting to me your intent and a mechanism for meeting them. But when we got to talking about how you looked at equipment, how you viewed it, it sounded somewhat like the view was primarily on reliability rather than safety, although in this statement you have equated the safety and reliability in your focus on this equipment. And that was what was troubling me.

MR. POLLOCK: And I hope I conveyed that to you again, that I find it difficult to disassociate reliability and safety.

MR. VOLLMER: I understand, but we have to --

MR. POLLOCK: I understand that, too.

MR. MATTSON: Well, I think we ought to try to wind this thing down, and that requires us to decide where we go from here. And I suspect the Staff will want to caucus before we make a statement on the record as to where we want to go from here, and we customarily

do that in private.

I'm not suggesting that we're ready to move on to that stage yet. Darrell made a promise to the folks from Suffolk County, so being the master of ceremonies here, why don't you choose where we go next?

MR. NOVAK: As I understand it then, as far as the Staff is concerned, we have asked the questions that have come to mind now, and there's no one on the Staff who has been waiting his turn to ask questions. I think it's reasonable for us to want to caucus to see what direction, what evaluation we've gained from this meeting. We certainly would want to hear from Suffolk County as to any comments they would like to make right now on what they have heard. We have certainly offered you that opportunity.

MR. MINOR: Would you like us to make that at this time?

MR. NOVAK: Yes.

MR. MINOR: I would like to make some comments for the County. This is Minor speaking.

When I look at the agenda for this meeting I had expected to hear two subjects in general discussed. One was classification and how they arrived at classification, had identification, and the other was some of the QQA aspects of how they would maintain that

over a period of time.

I felt a strong focus on the latter subject and very little on the former; that is, how did they really identify systems that are important to safety, and particularly some of the components and subparts of those systems. So classification, I felt, has gotten a minimum treatment today.

The point was made that there has not been a list of items prepared that has been given to LILCO to show them what should be important to safety, and I feel that totally misses the point. I would expect LILCO to feel a responsibility to prepare such a list for themselves to provide assurance that they meet the minimum requirements for the protection of health and safety of the public. And the lack of such a list being handed to them I don't think is adequate justification.

The third main item I would say is there has been a demonstration today in my mind that there is no defined LILCO QA program for nonsafety-related components in that there is no systematic and documented program consistent with the requirements in the criteria of GDC 1.

Instead, the LILCO approach is that the QA or nonsafety-related components -- and this is in my opinion, translating what I have heard -- will be

realized indirectly by application of several programs, and through those programs they will arrive at compliance with GDC 1.

I didn't find the discussion today convinced me that that would occur for all situations. We discussed several examples of nonsafety-related components which I felt were sort of left up in the air. General words were put together to say that these components would be handled under some of the maintenance programs, some of the PM programs and so forth.

But as far as their safety significance assuring that they are properly classified and that all of the components which should be classified "important to safety" are covered by these programs, I did not hear evidence today that that will happen.

Now, that is a very quick response to several hours of discussion, and I'm sure that reading the transcript I would want to make some additional observations or perhaps even modify those slightly. But I wanted to at least have a comment on the record at this time.

MR. NOVAK: Thank you.

Why don't we caucus, and I think we could at least plan on a half hour for that caucus at this time.

So we will reconvene this meeting at 12:30, and the purpose of reconvening will be to just sort of state our conclusions with regard to this meeting. We don't intend to continue the meeting. I think we will intend to tell you what our views are as of this time.

Thank you very much.

I guess the Staff members should stay right here.

(Recess.)

MR. NOVAK: I believe that the caucus was fruitful. We went over what we thought we learned. We have a proposal that we believe we want to pass on to you in terms of something we would like you to do in terms of looking at amending your FSAR. Rather than read it aloud, I think it would be just simpler for us to pass out a copy to you, let you read it for a minute. There are copies that could be given to all members here.

MR. MATTSON: Before we do that, I think it might help if on the record there be some explanation of our thought process by which we arrived at this position. I think in your response to Novak's letter of January 10th, if you had said we will accept the Staff's definition as we move into operations, and if you had built into that procedures and a quality assurance

program and what have you -- that is, you would have attempted to determine the importance to safety of equipment as you handled it in operations -- we would not have had today's meeting, or we could have had a very short meeting. That's the January 10th, 1983.

If you had agreed in response to that that that offer for you to agree to accept our definition of "important to safety." You obviously did not do that, and sent a letter back in reiterating your December 16th offer. So we were at a standoff, if you will, today.

That led us to seek if there wasn't another common ground where we had some assurance that when you talked about the safety significance of equipment, you meant roughly the same thing we meant when talked about the safety significance of equipment.

We believe we have achieved that in the requirement that we would like to pass out to you at this time. I will read it as you're reading it

We would like you to amend the FSAR to commit for nonsafety-related structures, systems and components to include in the preventive and corrective maintenance program, the design change control program, the procedures for procurement of equipment, the procedures for modifications and removal of equipment from service, and the QA program, a provision that, as a minimum, the

equipment and associated software shall be accorded the safety significance given to it in the FSAR, the technical specifications and the emergency operating procedures. The charters and decisions of the Review of Operations Committee, the Offsite Nuclear Review Board, and the Manager of Quality Assurance shall also reflect these considerations.

Now, in keeping with the spirit of what Tom said before the break, I don't think our intent is to sit and negotiate this position all afternoon. You have what we require of you, and we will await your formal response unless there is some clarification you would like at this time

MR. POLLOCK: I will say thank you in that vein. I don't to respond now because obviously the ins and outs of such a commitment we would want to look at. I understand what you have said -- don't misunderstand me -- and we feel we are doing that, which we have tried to express all morning to you.

I hope that we have given you a better perspective, a broader perspective than just the letter I sent to Mr. Novak on what our programs are.

MR. MATTSON: There is some timing -- now that we have said we are not going to talk about the hearing -- there is some timing when we need to get back to the

Board and tell them what we're doing to get new information in front of them and to tell them who the witnesses will be and all of that sort of thing.

MR. REIS: That is due at close of business on Tuesday in Suffolk County, and I don't know whether we could do any more than say that this has been submitted.

MR. MATTSON: Hang on a second. I think we could say we have required this of them. That satisfies us before the Board. I wouldn't think it would be necessary to finish this business by Tuesday.

MR. REIS: No.

MR. MATTSON: I certainly think it would be in the interest of keeping things straight and not confusing the whole issue to get it resolved fairly quickly.

MR. REIS: I would definitely agree.

MR. MC CAFFREY: I heard you say in your verbal remarks that you did find the presentations today to be responsive to your --

MR. MATTSON: Oh, yes. I think we said that as we went along.

MR. MC CAFFREY: That's an important point to underscore.

MR. MATTSON: Especially the things that you did take the time to tell us about: ISEG, and about the

PRA and about what you have done, you people, to feed that kind of safety information into your operating organization. That is good stuff.

MR. POLLOCK: Let me leave you with a thought without a direct response. If I look at the words without really digging into it, I don't think there's any difference in what you are saying here to what we are doing; and I think we will be able to respond positively. But let me say that with caution until we are able to look at it relative to our procedures.

MR. MATTSON: The difference being the formality we require you to accord it with; that is, that it be put in the FSAR, that it be put in all of these other places, because we did find a couple of places I think this morning --

MR. POLLOCK: Which is a commitment to this approach. And I have tried to say we are, and I think we hear what you're saying, so I'm not really that troubled with it; but I would like to have some time to get back to you.

MR. MATTSON: Your intent was to do something like this is what I hear you saying.

MR. POLLOCK: My expression to you is that we are doing this, and you are saying you don't see evidence of it, and I think that's where we have to pull

it together.

MR. ROSSI: Plus it's a lasting commitment throughout the lifetime of the plant.

MR. POLLOCK: Again, I thought I had done that in the letter, and that has got to be amplified on as a commitment to the Commission and to Mr. Novak. So let me give some thought to a consideration.

Again, let me just say thank you. It is agonizing and a lot of time and a lot of valuable people, but I think very well worthwhile. It is difficult to just say in one letter what we are doing, and I very much appreciate the opportunity to express our approach to this.

MR. MATTSON: For the record, Mr. Conran has a statement to make about his non-concurring in the position.

MR. CONRAN: I guess my disagreement or my lack of concurrence with this statement is roughly the same as my assessment of the testimony in the hearings so far. The term "safety significance" in the fifth line from the bottom I think is not mutually understood, and until there can be a demonstration of mutual understanding of the term "safety significance" given to it in the SAR, I don't think this says anything more than has already been said. It says more, but it

doesn't say it in a fundamentally different way, in the way that I am concerned.

"Safety significance" given to it in the FSAR says to me the safety significance that LILCO gave it when they wrote the SAR, and they have said on the record already what that significance was. It was you interpreted the phrase "important to safety," for example, in the SAR to mean safety-related. And I think the focus of the word "safety" is on the dedicated gold-plated accident-related systems that are provided under Part 100. I just don't think this clarifies well enough.

MR. STAROSTECKI: Wouldn't that be a good opportunity for LILCO to come back with a little more expansion of what "safety significance" means?

MR. CONRAN: That's why I mentioned it, yes.

MR. POLLOCK: Let us take this. We will get back.

MR. MATTSON: In keeping with your statement at the beginning of the meeting, we realize that we put you through the knothole to get down here quickly. You did a good job of preparing yourselves, and you brought key people. We thank you for that and for your patience.

MR. POLLOCK: I appreciate that. My only concern was that we might not have been able to with the

time frame.

MR. LANPHER: If I could just add from Suffolk County's point of view, obviously we only got this Staff view or proposal at the same time that LILCO, and my expectation is that we will have comments on it as well.

MR. NOVAK: Fine. I think if they are directed to me, fine.

Thank you very much. The meeting is adjourned.

(Whereupon, at 1:12 p.m., the meeting was adjourned.)

NUCLEAR REGULATORY COMMISSION

This is to certify that the attached proceedings before the

NRC STAFF MEETING WITH LONG ISLAND LIGHTING COMPANY

in the matter of: TO DISCUSS THE CLARIFICATION OF SYSTEMS, COMPONENTS, AND STRUCTURES FOR SHOREHAM NUCLEAR POWER STATION

Date of Proceeding: February 18, 1983

Docket Number:

Place of Proceeding: Bethesda, Maryland

were held as herein appears, and that this is the original transcript thereof for the file of the Commission.

Susan A. Harris

Official Reporter (Typed)

Susan A. Harris

Official Reporter (Signature)