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NUCLEAR REGULATORY COMMISSION

IN THE MATTER OF:

MEETING BETWEEN THE NRC STAFF AND REPRESENTATIVES OF LOUISIANA POWER & LIGHT TO DISCUSS THE APPLICANT'S RESPONSE TO THE JUNE 13, 1984 STAFF LETTERS

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AND REPRESENTATIVES OF :
LOUISIANA POWER & LIGHT TO :
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Room P-118
NRC-Phillips Building
7920 Norfolk Avenue
Bethesda, Maryland
Friday, August 17, 1984

The meeting was convened at 10:15 a.m.,

Dennis Crutchfield, NRC Staff Representative, presiding.

PRESENT:

REPRESENTATIVES OF LOUISIANA POWER & LIGHT:

JAMES CAIN
MICHAEL LEDDICK
DALE DOBSON
KENNETH COOK
THOMAS GERRITS
C. J. SAVONA
PETE JUDD
SAUL LEVINE
RAY BURSKI
SAM HORTON
DICK CUMMINGS
TONY CANTRONA
MIKE YATES
MR. CHERNOFF
LON BASS

NRC STAFF REPRESENTATIVES:

DENNIS CRUTCHFIELD
J. HARRISON
DARRELL EISENHUT

(Continued)

NRC STAFF REPRESENTATIVES (Continued):

DALE THATCHER
MARK PERANICH
MR. SHAU
JIM GAGLIARDO
LES CONSTABLE

ALSO PRESENT:

LINDA TROUTMAN O'SULLIVAN, ESQ.,
Gadsby & Hannah,
1129 Twentieth Street, N.W.,
Washington, D. C. 20036,
on behalf of Mercury Company.

HOMER C. SCHMIDT, P.E.,
Manager, Nuclear Services,
Nuclear Services Division,
Texas Utilities Generating Company,
Skyway Tower,
400 N. Olive Street, LB 81,
Dallas, Texas 75201.

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C O N T E N T S

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P R O C E E D I N G S

MR. CRUTCHFIELD: Let's go ahead and get started.

We have here a meeting today between the NRC staff and the licensee and contractors of Louisiana Power & Light. The purpose of this meeting is to get a better understanding of the program plan from Louisiana Power & Light as well as a summary of the initial findings that you folks, I gather, have found on your first set of the questions.

Mr. Eisenhut and Mr. Denton will be here shortly, but I think we ought to go ahead and begin anyway.

I understand, Mr. Cain, that you may have an opening statement.

We are keeping a transcript of this meeting and it will be publicly available after the meeting due to some ingenious arrangements that the staff went through at the last possible moment. I would also invite each of you to sign the attendance list. There's one cycling around, and there's one stuck on the back of the door, so we can get you a copy of the meeting summary or whatever else needs to be taken care of.

MR. CAIN: Good morning. My name is Jim Cain, Chief Executive of Louisiana Power & Light, and it is indeed a pleasure for us to be here with you this morning.

What I would like to do is give you a brief overview of what we are going to talk about this morning. We are

going to discuss with you the participants that are going to be on our program this morning. We are going to talk about the process that we're following, the issues that we are dealing with, and the progress that we think is being made to resolve those issues.

We are not here to talk about the schedule for licensing. We will discuss with you the schedule, however, for the submission of issues. We have prioritized those issues which we feel have the greatest importance and bear the need for the most discussion. We have devoted a great deal of manpower to the resolution of the issues that have been raised. For example, in personnel records review we have had over 36 people working on that item. On the verification of qualification of inspectors, we have had 31 people working. And in the inspection work we have had 40 personnel working.

We hope to discuss this morning any variance between the Draft SSER No. 7 and Mr. Eisenhut's letter discussing the 23 issues.

To the extent that there are allegations outstanding which bear need for discussion, if there is the opportunity to get into such, we would welcome that opportunity.

We are very appreciative of the NRC's innovative approach to dealing with the issues and concerns, and we appreciate the opportunity to participate with the NRC in developing a program and an organization to deal with the

resolution of the issues before us.

I'd now like to introduce Mr. Mike Leddick, Senior Vice President of Operations, who is going to briefly give you an introduction of the players that we will put on the program this morning.

Mr. Leddick.

MR. LEDDICK: Good morning, gentlemen.

Quickly I will put up what we think is an agenda for today, and a very simple agenda. I'm not sure it can be seen very well.

The people we expect to be making presentations this morning will be myself; Dale Dobson, Project Manager for Waterford III; Ken Cook, the Licensing Manager for Waterford III; Ray Burski, the Project Engineer for Waterford III. They will be doing most of the presenting, and then there are four issues that will be covered appropriately at the right time by Tom Gerrits, the Quality Assurance Manager, and C. J. Savona, who is the Senior Quality Assurance -- what is your title?

MR. GERRITS: Rep.

MR. LEDDICK: -- Representative.

Generally speaking, the way we have approached dealing with these 23 issues and other things as they come along that are related to this, we are using our line management to do this. I have designated Dale Dobson, the Project Manager, as the person that manages this whole effort. He is

what the role of the task force is.

All operating plants have a Safety Review Committee or a Safety Review Board or something of that nature. This is ours. It's been functioning since June of 1981. It has a membership of appropriate people from my staff plus three outside members.

The subcommittee that has been set up to review the answers to the 23 issues has four people on it. It is headed up by Ken Cook, who also heads up the SRC. It has Ray Burski, the Project Engineer. It has Bob Douglas, Quality Assurance Manager from Baltimore Gas & Electric, former plant manager of Calvert Cliffs. And it has Joe Hendrie, and I think everybody knows Mr. Hendrie. Those two gentlemen have been members of the SRC for quite some time. It's an in-place committee. It's designed to deal with safety issues. We thought it appropriate that they would be involved in this process.

In terms of the task force, I think Mr. Cain would like to personally talk to you a little bit about that.

MR. CAIN: In responding to Mr. Eisenhut's letter on the 23 issues, I felt it necessary to have technical advice, independent of my normal line organization, to better assure myself as to the accuracy of developing a response to the issues.

On June 20, I established a chart for an independent task force composed of Robert Ferguson, Chairman of UNC,

Larry Humphries, President of UNC, and Saul Levine, Vice President and Group Executive of NUS. These gentlemen, I believe, are well-known to the NRC, both for their technical expertise and their independent views. I am pleased they have agreed to help us.

In addition to establishing the task force, LP&L has also contracted with NUS to supply technical support to the task force. This support work is being done independent of the LP&L line organization.

I'd like to introduce Saul Levine at this point to let him personally describe his functions to me and that of the task force.

Mr. Levine.

MR. LEVINE: Good morning. I am happy to be back at the NRC where I spent many years.

I'd like to second one thing that Mr. Cain mentioned. I think many of you know personally the three members of the task force and know that we are technically competent and know about how we are competent and also know about our independence of you. I think I need not emphasize that anymore.

I'm going to talk today about two things. One is the role of the task force, and the second is the role of the NUS support group.

Some of the words are very obvious. The task force works closely together, mainly by means of phone calls. We

are mailed or receive when we are at the site various draft responses being worked on by LP&L. We review them. We discuss them among ourselves. We feed back to Peter Judd, who is the NUS Project Manager, our comments to help the support group follow up on the things we are interested in and to help feed comments back to LP&L.

The comments we are making are not on the detailed wording of the responses. We are mainly interested in addressing the logic, making sure that the logic in the responses is directly coupled to the NRC suggested things they want to hear about. So that's the logic we are pursuing.

Our charter is covered here in this bullet to provide program plan implementation schedule, the program plan we have had input into. The implementation schedule is a difficult matter. It is difficult to set a schedule that's firm because, as you know, many of the things are still being looked into. There are walkdowns being conducted. There are statistical sampling things going on. And you can't really determine where those are going to end for sure until you go through them once.

But we have schedules for certainly the first go-arounds. We have guess schedules for the second go-arounds.

We will look at the adequacy of the responses and the validation of the responses. We will look to the safety significance as well as the generic implications of each of the issues.

Finally, the last two items, D and E, the adequacy of the past program with QA/QC, and recommendations for future improvements, will be wrapped up in your question about collective significance of all these issues.

The task force will finally formalize its assessments and send a report to Mr. Cain and to NRR at the same time. The implication of that is there will be no editing of our report. It will be our report to Mr. Cain and to NRR at the same time.

MR. EISENHUT: May I ask this: When you say the task force will formalize its assessments, are you going to do this item by item? For example, are you commenting on the program plan at some point and say that this is a program which, if taken to fruition, should be a program to solve these problems?

MR. LEVINE: We have already made such a comment. When the program plan was sent to the NRR, there was a task force letter written saying we had reviewed the plan and we felt that if properly implemented it could result in the resolution of the issues. That was forwarded along with the plan to you.

MR. EISENHUT: So the plan, as you are referring to, is this July 27, 1984, letter that came in and said, "This is basically an item-by-item approach saying this is what's going to be done to answer each basic question."

MR. LEVINE: Yes. Now, of course, it's formative.

As each of these items is explored further and further, there are changes from time to time, not so much in principle but changes in detail. As more information is found out, the emphasis will shift a little bit. But basically we felt that if that plan were implemented, it would result in resolution of the issues.

MR. EISENHUT: I guess what I'm looking for is: At what point do you get to resolution on things like sampling plans or sampling details? Do you feel this program, as laid out in the July 27 letter, is specific enough to say how you would go or in what direction you would go in terms of sampling techniques, when you would trip off to do more sampling, or how much is enough to lead you to a conclusion?

MR. LEVINE: Without being able to recall all the details in the plan, I think in general that sampling is a level of detail below that presented in the plan. But we are hard at work at that now. We are developing the technical basis and principle for sampling, and we will develop a sampling plan for each issue we are sampling as appropriate. We hope to have a meeting with you to go over that at the appropriate time.

MR. EISENHUT: That leads me back to the other basic question, though, and I'm really just trying to understand how this all fits together. Because the program itself -- first, the utility has to elect to do something.

Let me pick an easy one. Question 1, I believe, is

the QA/QC inspector qualifications. The utility could have elected to do a fraction of those by some approach, and then using that approach you could have a criterion. But that program, in the first instance, is really a utility program.

MR. LEVINE: That is correct.

MR. EISENHUT: So when you say you are developing the sampling technique, do you mean you are providing that input to the utility for their front-end work, or is it really more of a level you are looking at in terms of overview, which are really two separate things?

MR. LEVINE: Let me talk about each of those separately.

MR. EISENHUT: All right; good.

MR. LEVINE: We have had some meetings with the utility where we have developed the principles we think should be followed in sampling. There have been some discussions about that. This is a mutual educational process, if you will, and the attempt to establish a sound scientific basis for a sampling program. Where the utility is using sampling, the task force will review that sampling and comment on it to find discrepancies.

Then, in many cases the utility is doing 100 percent reinspection or rechecking or what have you, and the NUS support group, which I will be talking about, will sample some of that, not redo 100 percent, and we will then have a sampling

program and a sampling procedure laid out to cover that work.

MR. EISENHUT: Okay. So in that context, then, the middle bullet on your slide, which says it's really providing an independent assessment to the CEO, really isn't so much an independent assessment, because I would take the third bullet to say that when you provide independent assessment inputs to the CEO you send those to us at the same time.

MR. LEVINE: Yes.

MR. EISENHUT: So, for example, you are providing a different level of sort of informal input back to work out the details of what the utility has to get developed, if you will, in terms of more of a detailed program.

MR. LEVINE: We have, I would say, an open interchange with the utility. Both the task force and the NUS support group are working that way. The task force is encouraging the NUS group to in fact have such an open interchange. This interchange could be described as helping to formulate the program, but mostly in the sense of looking at the logic: Is the logic being developed that will be responsive to your directions? And that's what we are looking at principally. We are reviewing it, the NUS people are reviewing it, and we are commenting to the utility on that, mostly on the logic.

We are at the same time developing validation steps, validating document review, validating sampling inspections and

the like. And I'm going to cover this in more slides.

MR. EISENHUT: I'm trying to look at the overall structure. The way I read the July 27 submittal -- and I guess what I'm really looking to is: I looked at it not so much as a program in terms of something you can implement as much as sort of the elements of where you're going, and a lot of work had to be developed along the line.

MR. LEVINE: That's exactly right. That's exactly the way to view it.

MR. EISENHUT: It wasn't a detailed program plan in the way we normally use that terminology.

MR. LEVINE: That's correct; that's correct.

MR. EISENHUT: So there will be -- I guess I would expect, at some point into the process, that I would get another letter back which would say, "This program that we discussed some basic elements of in the July 27 letter, we have now formulated it into a detailed program plan. Here is what we, the utility, are implementing; here is the independent assessment being done in the following, and here is where it's going down the line."

I guess I would expect that at some point, granted the details will vary item by item.

MR. LEVINE: I'm not sure that's necessary, Darrell, although we are open to suggestion. My view of the way the situation is developing is that the program plan was a statement

of principle of what would be done for each of the issues, and now there are drafts -- there have been many drafts -- of each issue.

MR. EISENHUT: But those drafts haven't been submitted to the NRC, so you'll have to admit I'm speaking from ignorance.

MR. LEVINE: Five of them have.

MR. EISENHUT: The last five pieces. But at that point it's really the implementation of the five.

MR. LEVINE: That's right. What I'm saying is in my personal view I don't think there's a step needed between that program plan that was submitted by the utility and the submission of the responses to the issues.

MR. EISENHUT: You appreciate, though, at the same time that in essence it's a major gamble by the utility. If you wait until you're the end of the line, until you've completed the implementation of a particular component of the 23 and submit the implementation, you run a major risk of the staff saying, "Well, if you had done it a little better during the front end, we'd be happy with the product. As it is, we can't quite buy the conclusion."

MR. LEVINE: That's a valid statement, no question about it. But we hope in a meeting like this and maybe future meetings to go over these instruments and play the logic and hear responses. In some cases we're not sure we are addressing

exactly the right question because we understand that there is more information available.

MR. EISENHUT: Absolutely.

MR. LEVINE: So I think you're right in saying we can't go from that program plan to responses to issues that we are sure will be on the mark, and we hope to have discussions like this to go over them.

MR. EISENHUT: Right. But it's hard for the staff to do a review and approve something in a meeting in terms of the depths of what you're looking at item by item. It's something I think we are really going to have to focus on hard.

MR. LEVINE: I agree.

MR. EISENHUT: Because the July 27 letter really didn't spell out the details of what you plan to do, how you plan to do them, who the utility plans to use to do the job in the first flush, why those people are qualified or at least what criteria you're using for who is doing the job, so that we could have confidence in the process.

MR. LEVINE: The process is going to be discussed here today.

MR. EISENHUT: I appreciate that. And the second level would be the independent assessment, and my second question is: In your mind, how do you define "independent" as used on that chart? Because many, many different people have a definition of "independence."

MR. LEVINE: There are many definitions of "independence." To me, independence is really an intellectual statement. There is no way to achieve independence except by what goes on in your mind.

If I were to say that I would let or NUS were to say that they would let LP&L influence their evaluations and their validations in any way, that would be a detriment to independence. On the other hand, in the course of developing the program, in the course of checking logic, in terms of gathering information, there should be a free and open interchange. And I see that as the only way to do technical work. You have to have technical people talking to technical people to exchange information and to exchange ideas, but when you do the work that results in the independent assessment, it should in fact be independent of the utility.

And I think that's the way we're working. In fact, NUS has a project plan, which I will summarize for you, that says just that.

MR. EISENHUT: Let me ask you this: You will agree that clearly there has to be the free and open exchange of information to enable you to do the job, but clearly if you take credit, so to speak -- the utility does, I guess -- for this to be an independent assessment, you have to some degree demonstrate and explain how and why we should believe this is an independent assessment.

MR. LEVINE: I have slides to cover this, actually.

MR. EISENHUT: I appreciate that. So clearly one of the things for this process to be a valuable process, it has to come off with being able to convince people that it was an independent assessment.

MR. LEVINE: We agree with that.

MR. EISENHUT: I'll be quiet and let you continue.

MR. LEVINE: Let me say I can't convince you completely, but I can tell you what we are doing and what we are going to do, but the final crux will be your looking at some of our records.

MR. EISENHUT: Right. And that's the point I was making earlier. The way I look at this process is that there have been smaller questions that have been raised in the past where the utility was to follow up on a program, and the effectivity of that follow-up wasn't as good as we'd like to have seen. And we got ourselves to the point where we had 23 questions that we laid out.

The first thing I think the utility has to convince us of is he has aggressively pursued those 23, and first we should have confidence in his assessment of those 23. He's got to have a program. Here is how he's going about doing it. Here's the people he's used; here's why they're qualified. Here's the result of the program.

That is the first, most thorough tier, so to speak.

The second tier is: In this case you're saying you are providing an independent professional assessment to the CEO. We have to understand that process. The NRC will likely audit the bottom tier, the utility; second, audit your tier; and third, do some of its own independent checking to get its confidence level.

MR. LEVINE: That's what I anticipate would be happening.

MR. EISENHUT: Right. The reason my first question was laid out like it was is I was looking to -- before you can define and create the appropriate way that you as an independent checker is going to do the job, you clearly have to know how the utility is going to approach the job.

MR. LEVINE: That's where the free and open interchange comes in.

MR. EISENHUT: Right. And you can give him feedback that his program isn't as good as it should be or whatever. Secondly, another job would be for you to audit his program as he proposes doing it.

MR. LEVINE: That's right. That's the way we are set up.

MR. EISENHUT: That's the way I'm looking at it, and, Denny, you may want to comment. But that's sort of the direction I'm heading in.

MR. LEVINE: May I go on?

MR. EISENHUT: Yes.

MR. LEVINE: I think I may have used most of my presentation, but I'll go it over it anyhow.

MR. EISENHUT: Do it twice for the slow folks.

MR. LEVINE: There are more details here.

I talked about the task force at some length, and these slides are going to talk about the NUS support group and its independence.

The work scope of the task force is to assist the task force in independent assessment, and the second element is to provide inspections, validation and other assistance to LP&L on items not covered in the charter. This doesn't have to do with the 23 issues. I have a slide to explain that in a moment.

MR. EISENHUT: Let me ask you a more philosophical question. You raised it in the slide. When you said you provide inspectors, sort of another level of inspectors --

MR. LEVINE: I should say inspections.

MR. EISENHUT: All right. But if you provide inspections, you have to have inspectors to do the inspections.

MR. LEVINE: Right, but they are working for NUS, and they're taking direction from NUS and not from LP&L. And that's the difference in the two words.

MR. EISENHUT: Right. Now, if you provide the inspector working under NUS, does that mean that NUS goes back

before it provides someone to do an inspection in a particular area -- you must first define the job they are going to do, and then look at that person's qualifications to see that he is qualified to do that inspection work.

MR. LEVINE: Yes.

MR. EISENHUT: Did you do that and go through that kind of process?

MR. LEVINE: In fact, we review the LP&L procedure. In these inspections we are following behind LP&L. These are not your 23 issues. These are the CAT items, and there are two such items -- electrical separations and pipe hangers. LP&L had a procedure prepared. They defined the job they wanted us to do. We reviewed the procedure. There were some modifications that we could assure ourselves that the inspectors could in fact perform competent inspections, and then they do the inspection for our project manager and we report the results to LP&L.

But the task force is not involved in that work except to say, "We think it's okay for you to let this work go ahead, and it will not interfere with us."

I have a slide on this that covers it.

MR. EISENHUT: Right. Are your products, when you complete an inspection -- do I follow the last bullet on the previous slide to imply that everything you're talking about through the discussion, that is, when you provide the products

of your work on an inspection, for example, you would send those to the NRC at the same time you send those to the utility?

MR. LEVINE: Yes and no. There are two elements. When we finish an inspection having to do with one of the 23 items, that will appear as a validation part of the task force report which you will get. We will not send the internal report. The task force is going to write one report which says, "We have reviewed these 23 issues. Here's what we think about them; here's how we validate them; here's what we've found." That will be one report all wrapped together on each issue and collective significance on all of them. But there will be at the site reports of the results of those inspections documented in our files.

MR. EISENHUT: But if they are available at the site, why wouldn't it be a lot easier to send them in to us for us to have the benefit of your thirking as you go along.

MR. LEVINE: When you get an inspection done, that is not entirely a thought process. It has to be evaluated.

MR. EISENHUT: I appreciate that.

MR. LEVINE: So we can give you what I would call raw data, but I would think you'd want to wait for the evaluation of it.

MR. EISENHUT: Well, I may want both. Otherwise I won't be able to audit, so to speak, your process, your work,

as the independent assessor until the end of the line otherwise.

MR. LEVINE: No, I think --

MR. EISENHUT: If you send one report, I'll be able to review that report, but that report undoubtedly will not have all the details in it.

MR. LEVINE: That's right. I would think you would want to audit some of our site files.

MR. EISENHUT: All right.

MR. LEVINE: And I think you could audit the site files before we send our report. But I think there's a danger to that kind of auditing, because to look at an inspection report doesn't necessarily give you the kind of perspective you need as to how that inspection relates to the whole issue.

MR. EISENHUT: Sure, what it really means. I appreciate that.

MR. LEVINE: That has to be done as an evaluation.

MR. EISENHUT: I admit I'm struggling with another consideration. That is, as you are well aware, we are continuing to review progress and developments and continue our own inspections. We could just sort of fold up our tent and go away for a period of time and wait and see the end product and do what you are suggesting, look at the end product. But it's not clear to me that that's the most effective way for us to work.

MR. LEVINE: I understand that.

MR. EISENHUT: Nor does it appear to me -- by definition, that's going to extend the process.

MR. LEVINE: I understand that. But remember what I said before. We're hoping to have some interchanges like this where such kinds of information can be interchanged. If you think it's necessary, I guess you could come down and look at whatever you want to look at.

MR. EISENHUT: Yes. I think if we really want to believe in the independence of the process, we would want to look and see what kind of guidance, advice, comments, feedback is going on during this process.

MR. LEVINE: I sent Denny a letter yesterday. I think you got it yesterday. I don't know if you have it.

MR. CRUTCHFIELD: It hasn't showed up in the mail yet.

MR. LEVINE: All right. You asked us for resumes a week ago. We sent them, and then we sent some more perspective. And what we have now is the NUS project plan which discusses most of the issues you're talking about here, and I plan to summarize those.

MR. EISENHUT: Good. And I appreciate we are working considerably behind your thought process, the utility's thought process, only because we are delayed in time and we haven't had the benefit of looking at that. A number of my questions may be a little naive, but I'm trying to understand how things

really are going to fit together, and the philosophy you are using of how this is all going to fit together to work. Because the single biggest achievement, short of having the safety product, is that it's a creditable process for the utility, and it has to have credibility coming from NUS in terms of our auditing it and looking at our template over the top.

As you mentioned, you sent us the resumes of the NUS inspectors.

MR. LEVINE: More than inspectors.

MR. EISENHUT: Resumes of a number of the NUS people involved.

MR. LEVINE: They perform three functions. They perform review of issues. Some of them are engineers, some are inspectors. There are people who validate documents and there are people who do inspections.

MR. EISENHUT: Right. And I should say there are two ways we could work the process. In this case, we certainly were aware that NUS had a number of people on the site doing a number of things, so we could go in with a surprise inspection, so to speak. We could go in as a result of that, as we did in this case, and ask for resumes of all the people involved and check after the fact. It's a whole lot easier in the front of the process if you say, "This is the kind of work we're going to do; these are the kindsof people we're going to use to do it, and here's why they qualify."

MR. LEVINE: That's what's covered in my presentation today, and in our project plan.

MR. EISENHUT: Saul, I will try to be quiet.

MR. LEVINE: No, I don't mind.

MR. EISENHUT: Go ahead. You're making good progress.

MR. LEVINE: Independently of the task force, the utility has contracted with NUS to supply technical support to the task force. The scope of this work is covered in our project plan which I said we have sent to you. The paramount objective of the support group is to insure independence of the task force efforts.

The task force encourages full and open discussion by the support group with LP&L for information. Validation efforts and recommendations to the task force are to be independent of LP&L.

Again, as I said before, the principal emphasis in our information exchange has been to gather information, to gather background, but also to provide real time feedback on the logical structure of the responses, to make sure that when the task force gets to evaluating them we are pretty sure the logic that we need will be in there.

MR. EISENHUT: Let's see. You are careful to characterize the kinds of discussions you're having. Let me give you a hypothetical.

Suppose in your review you think you find, for the

lack of characterizing it any other way, something that could exhibit itself as a safety problem, something where the process didn't work as well as it should, which could exhibit itself as a safety problem. Would that be something you provide back to LP&L directly, or would that be something you would also make -- well, let me ask you this: How would you handle such information?

MR. LEVINE: These things have arisen in terms that we have found what we think are missing pieces in logic. We give that comment to LP&L. We say, "We think this logic step is missing. You ought to put it in." And they have.

We have found in what I would call our prevalidation efforts, but in looking at the kind of information that's available we have found some difficulties. We have called these to LP&L's attention, and we have found in fact that some documentation we couldn't find was available or some work had to be done that wasn't being done that they then planned to do, and so forth. So this is going along. It's sort of what I would call information exchange and helping to formulate the program, which I said before we were doing.

But now when it comes to doing the review of documents, doing the inspections to find out what is physically there in the plant, that's done independently of them. We just do that ourselves and get our data and write our report.

Does that answer the question?

MR. EISENHUT: Yes.

MR. LEVINE: Okay. I've said this two or three times, but the NUS effort is directed principally to getting the correct logic in the responses, in particular to those aspects in your letter where you say, "LP&L shall address the following matters." We are trying to make sure that the responses as being prepared contain the correct logical elements to respond to those things.

Then it's independent validation of documents to support the facts, independent inspections to validate the facts, development of sampling approaches that are soundly based. And I said we are in the midst of doing that. We will discuss that with you. And the preparation of results of analyses and recommendations to the task force. Then the task force will use it as a basis for writing its reports.

MR. HARRISON: I'm having a problem. You previously said you were commenting on giving LP&L feedback aside from the independent validation process.

MR. LEVINE: That's right.

MR. HARRISON: Missing items, missing work, or whatever. Are you documenting that?

MR. LEVINE: A lot of it has been oral. Pete, is there any documentation of that?

I have some examples I can give of things we have done.

MR. HARRISON: In the way I understand independence, I'm not sure how you are addressing independence in that regard. It looks to me like a mixed bag of independence and that that is not independent.

MR. LEVINE: The information exchange is free and open. When we comment about logic, we have been doing that orally. I have some examples of the things we have told them that have affected the logic which I think I can give to you.

I'm not sure we are documenting that, Pete. It will be documented in our report, however. Where we have said we have encouraged LP&L to do so and so and they have done it, it will be in our report. And if you wish, we could write up a file, not a document, of all that stuff.

MR. CRUTCHFIELD: The problem is that makes it difficult for us to go back after the fact and audit it.

MR. LEVINE: We'll start it right now. We will reconstruct it from the beginning and keep it current if you want that.

MR. HARRISON: I still don't understand the independence of your effort, the true definition of what independence is all about.

MR. LEVINE: Well, let's see. Are you hung up on the comments on the logic?

MR. HARRISON: The comments on the logic. And the other example was you were saying they may have missed a work

activity that you brought to their attention that they didn't plan to do.

MR. LEVINE: That's sort of a logic, too.

MR. HARRISON: Okay.

MR. LEVINE: It all fits.

I think for the task force to be able to assure itself that it can reach a conclusion that has a chance of being favorable, we have to be sure that in the LP&L responses, which is what we are commenting on, there has to be a correct logic structure. So I think that has to be ongoing in real time. And I don't think that jeopardizes our independence.

MR. EISENHUT: No, but there's a fallacy in the argument, though. If, for example -- well, it might jeopardize independence, too. I'd have to think about it a minute. But there might be a fallacy in the argument.

Let me stipulate the worst. Suppose, for example, the proposal that the utility planned to use to resolve these 23 issues in your mind was that every single one was totally devoid of key pieces. The utility laid out a structure and in each item you went back and said, "Mr. Utility, you just really don't have a program here that would answer the problem. You'd have to do this and you'd have to do these following things."

And if you had to do that on every one, that flags to me a bigger issue. It flags to me that the utility's program

that they would devise in that hypothetical would not have been very effective, and it brings into question the utility's ability to lay out an effective program.

MR. LEVINE: I understand the question.

MR. EISENHUT: The first part of it is, I think those are very important to us in terms of the effectiveness of the utility's efforts, both from a managerial standpoint and a technical standpoint, to get to the bottom and the heart of these issues. But secondly, it is not clear that there is not a conflict in terms of if you then in effect are the one laying out the program -- in my hypothetical, all 23 you fixed --

MR. LEVINE: But we're not.

MR. EISENHUT: But, you see, I don't know that, because I won't know the degree to which you have had to fix their 23 programs.

MR. LEVINE: You will when you see our report. And you will if we prepare the kind of file you want. If we prepare that file, you will be able to see that.

MR. CAIN: Mr. Eisenhut, I think perhaps a comment from me is appropriate at this point. As I view the process we are going through in developing the logic and organization to respond to each of these 23 issues, we didn't start and say, "This is the process we're going to follow and it's rigidly defined." It is a moving, flexible process that, as we get into the issue and as we have better appreciation for it, and as we

learn more about it, the process may change. And I would hope you would afford us that flexibility.

MR. EISENHUT: Sure.

MR. CAIN: In the development of the process, we are utilizing NUS, we are utilizing various consultants to work with the company in developing the process.

However, in the conclusion of whatever that process is determined to be, NUS will stand up and tell me in writing that they have reviewed the work that has been done and they are satisfied that the work has been done accurately and is an appropriate response to the particular issue being raised, just as Joe Hendrie will and just as Larry Humphries. And I in no way, nor has the company in any way, intimidated them or interfered with their ability to stand off and disagree with any conclusions.

MR. LEVINE: You just gave my last slide, but that's all right.

MR. HARRISON: I think our concern is that the NUS task force is providing consultation to your program, helping define that program and the scope and the direction, and then in the sense of the way the NRC looks at a third-party effort, they are also going to assess something they were part of. That places that independence somewhat in question. That's the problem.

MR. LEVINE: Let me talk about that.

When we got involved in this for the first time -- there were already draft responses prepared on some of the issues -- we started to review those, we started to talk to people to be sure we understood the issues and the responses. We then decided what we should be concentrating on is the logic as a necessary ingredient to help us perform our jobs without waiting until all their responses were done and then there were errors in logic that we would find. That is not a productive enterprise. We felt we had to give comments on logic. So we are doing that. The task force is doing that with help from NUS. But it is basically the task force that is providing advice to the LP&L on missing logic.

And I see nothing wrong with that. In fact, I see no way to do that, because if you did it serially it would take forever. Not that we found that many deficiencies in logic. We have found a few. But why go through months of work and then say, "Well, this is no good; we've got to do it over again." If we can do that as we are going along, and our thought process all the while we are doing that is we are ultimately going to validate the correctness of these facts, independently of LP&L and its contracts, I don't see any conflict in that and I don't see any lack of independence.

You make assessments of licensee applications and all kinds of things, and you have meetings with them as a way of exchanging information, with suggestions made on both sides.

That's the normal process by which technical work is done. But then when you make your assessment, you make an independent assessment. That's what we're going to do. We're going to make an independent assessment.

MR. HARRISON: Is this whole process part of your project plan?

MR. LEVINE: Yes, which I'm going to summarize.

MR. EISENHUT: I think that's something that will help us and is something we are obviously going to have to look at in some depth. This is obviously an area that is causing us a little bit of difficulty because if you were commenting on the utility's program -- if you had a detailed program plan, for example, you could comment on it, and that would be one thing. And let me use an example.

The first question here relates to QA/QC inspector qualification. The utility could have proposed a program which was a sampling technique, and he could propose a program which samples a certain percentage, and he could propose the criteria for when he trips into further detailed sampling, et cetera. He could have laid out a program in that kind of way.

MR. LEVINE: He could have done so.

MR. EISENHUT: And you could have commented on the details of how that worked. That is one thing, and we would certainly understand that. And if those were auditable comments on the program plan, we could go in and look at those, just as

we would very likely have comments on a program plan.

But if it's a different situation, if it were more of the utility embarked on checking QC inspectors, he didn't really initially have a guideline of what he was going to try to do, whether he was going to try to assess a fraction with a sampling technique, whether he was going to do them all, and he was giving preliminary results to NUS, and NUS started looking at them and saying, "Gee, these are pretty bad" or "pretty good," and "You'd better phase down or phase up the program," we'd want to know that. We would want to know that that feedback came from NUS that told the utility, "Hey, I think you're in difficulty" or, "I think you're in good shape." That's why we're struggling. We are just going to have to look at the difference between the program plan, the processes at work, or the implementation as I call it, in some depth. But that's an area we are having some difficulty in understanding exactly how it's going to work.

MR. LEVINE: Let me say just a few more words on this subject and repeat what I said before. I think the step between the program plan that has been submitted and the responses is close enough in time that to have a more detailed program plan, as you initially suggested, would not be a meaningful step. That is my opinion.

MR. EISENHUT: One of the things I'd consider, then, is saying that you had an early program at some point, using

again the first item on the agenda. At some point, regardless of the program that was laid out, whether it was statistical sampling or whether it was 100 percent sampling. The utility could have a detailed program that says, "I am going to check 100 percent of the people. I'm going to check it with these people with these qualifications. Here is how I'm going to do it."

MR. LEVINE: They are going to do 100 percent check.

MR. EISENHUT: I understand they are, and that's why I used it as an example.

MR. LEVINE: In other areas they are going to use sampling.

MR. EISENHUT: And the details of that is not clear to me. I don't think those would be very valuable to us prior to them being implemented by that kind of approach. But as I say, it's something we're going to have to take a look at.

A CONFEREE: Saul, I have a question. With respect to your documents in the second bullet, would you characterize those as including both proposed actions and completed actions?

MR. LEVINE: The second bullet talks to documents that are LP&L and contractor documents that are referenced or that are needed to understand the validity of statements made in the responses. There are mountains of documents to back up the factual statements made in the responses. So we are going to review those documents to assure ourselves that they are in fact

there and they do in fact say what they are supposed to say. So that is what we mean by documentation review. We validate by reviewing the document.

Does that answer your question?

THE CONFEREE: Yes.

MR. LEVINE: Why don't we go on to the next slide, because if I can move along a little bit, I think some stuff will get a little clear, hopefully, with time.

I mentioned before we had three kinds of people. We call them reviewers of issues, documentation reviewers, and inspectors.

What do reviewers of issues do? They evaluate the issues, including their safety significance and generic implications. Their initial step is to really get background information to be sure they understand the issues and everything they have to to be able to evaluate it. Then they do their evaluation of the logic, as I said before, and then they develop procedures for documentation reviews and inspections needed to factually validate the LP&L responses.

Then we have documentation reviewers who carry out the procedures written by the reviewers of issues and doing their documentation reviews. They will be done in accordance with approved procedures, and they will be trained in the execution of those procedures.

Then we have inspectors who will be qualified and

certified in accordance with ANSI 45.2.6-1973, and they will perform inspections by the procedures written by the reviewers of the issues after being trained and tested on the inspection procedures.

MR. CRUTCHFIELD: The first two groups of those are principally dealing with the 23 questions. In the third group the inspectors are also dealing with the CAT follow-up items.

MR. LEVINE: A small part of their effort is the CAT follow-up, and I'm going to cover that.

Here is how we qualify our inspectors, certify our inspectors. This is a routine we follow in NUS all the time.

We verify their educational history and their employment history, and then a Level III inspector certifies that that's okay, and we get a general certification. Then he gets class instruction and testing on specific procedures that he will have to implement, and then he is further certified by Level III to execute those specific procedures.

The first certification is in general areas, like mechanical, electrical, or what have you.

The second certification is to test him and see if he can implement the procedures on hand.

Finally, he gets a certification to perform the field inspection of that procedure. And it's all done by Level III inspectors.

MR. CRUTCHFIELD: Are the LP&L's Level IIIs involved

in any of the two-way hand blocks?

MR. LEVINE: This is all NUS.

Here is the one you asked about just a minute ago. This is support on other than the 23 issue work. LP&L, in fact, has requested NUS to provide assistance to them to perform inspections to back up some LP&L inspection work related to CAT items. They are the electrical separation issue and the pipe hanger issue.

MR. HARRISON: That's an overinspection type of activity?

MR. LEVINE: They are reinspecting, and we are doing the same reinspection over theirs.

MR. HARRISON: Okay.

MR. LEVINE: This work is being done with approval by the NUS project manager and the task force under the direction of the NUS project manager. It is also being done in accordance with LP&L procedures that have been reviewed and modified by the NUS project manager. He has yet to write the approval letter but he will.

In no case will the NUS project manager assign personnel to such work if in his judgment or the task force's judgment there was a conflict of interest or it jeopardized the independence of the support group.

The fact they are overinspecting some work in areas not covered by the 23 issues seems to me to be no conflict of

interest.

Now let's talk about the independence of the support group. Remember that it reports to the task force who reports to the CEO, so it's not reporting to anyone in the line organization. It has the freedom to establish its own scope of work within the framework of the task force charter. There is no one telling them what to do except the task force members. There is no one telling them to do more, less, or whatever, except task force members. They have the freedom to add the type and number of people needed to execute the scope. There is never any question that if we need five more people we'll get the five more people and the kind we think we need.

The validation work that we do, both in documentation review and in inspection, will be documented and will be available to the NRC. And the formal report that the task force writes will go to the CEO and NRC simultaneously.

The last thing I'd like to mention -- you asked a lot of questions about independence, and you, the staff, are independent of the utilities when you grant a license. You feel you're independent because you're representing the government and you have a law to comply with, you have regulations to comply with.

Companies like NUS have nothing but their technical reputation to rely on. They have their own internal rules and regulations. They have to operate in accordance with your

regulations.

But we must necessarily be independent, because if we are not independent, then we are of no good to anybody. Everybody will know that, and we will not get any work.

So our work is based on our reputation for doing competent technical independent work. We are hired to give our independent viewpoints. That's what consultants are. We are a consulting company. And I think that issue transcends everything else we do. We can't jeopardize our reputation by doing work that degrades our independence.

That's all I have to say this morning.

MR. CAIN: We would now like to ask Mr. Dobson to address the process.

MR. GAGLIARDO: Jim, I would like to ask one question of Saul before you leave.

Saul, in your discussions you put an awful lot of emphasis on the program plan review and reviewing the logic of the plan and lesser on the validation effort. Could you address roughly what percentage of the effort is going to be involved in this actual validation of the effort, recognizing that in the 23 issues that we have submitted to the utility we didn't shoot a whole lot of holes in their program; it was primarily the fact that the utility had failed to implement their program. So I am interested in a comfortable feeling of the fact that you're going to be looking very closely at their

implementation of that program plan.

MR. LEVINE: Well, I hear several questions, and let me try to straighten them out first before I give an answer.

The word "program plan" to me has a very specific meaning. It's the document filed with the NRC. The program plan is in response to Darrell's letter.

We are not going to validate the program plan. The program plan is a statement of, "Here's how we are going to go about developing responses to the issues."

If you talk about the issues, the 23 issues plus their collective significance, that we are going to validate. We are going to take the responses from LP&L to the NRC, and where there are facts in those responses that are necessary to confirm the logic that we think is responsive to what NRC said it wanted to hear, we are going to validate those facts. We will validate them with sampling techniques where appropriate. And where sampling techniques are not appropriate, we won't use sampling techniques. If it's document review and it involves the review of 15 documents, we'll review the 15 documents. On the other hand, if it's inspecting -- in one issue, for instance, there were 12,000 bolts reinspected by LP&L. We are not going to overinspect 12,000 bolts. We're going to take a sample. But we will do validation of all the facts necessary to confirm the logic in the responses.

I don't have an estimate in my head as to how much is

review the responses and how much is validate, but I suspect it's half and half.

Pete, do you have some feeling about that?

MR. JUDD: I think initially it's been half and half. As long as we've got more draft of responses, more effort is going to be put on validation.

MR. LEVINE: Toward the end there is going to be more and more effort on validation. But then we'll come back again to a final evaluation that is necessary to write the task force's report.

I don't know if that answers your question.

MR. GAGLIARDO: I just wanted to get a sense of that.

MR. CAIN: Now Mr. Dobson, the Project Director, will speak to the process that we're following in developing the responses to the 23 issues.

MR. DOBSON: I would like to go through the process as to how we go about putting our responses together and the program plan as well.

Both prior to and after receipt of your letter of June 13, we assembled for each issue all of the expertise we could bring to bear on the individual issues, and we attempted to understand the real concern. We addressed the option with regard to how we were going to go about responding to your direction, the portions that we would use, how long it would take, et cetera; the root cause of the concern and the issue;

the generic implications, how broad would they be and how broad should they be; and finally how are we going to resolve the concerns and the issues.

At the front end, we put together a preliminary program plan in response to the June 13 letter. That was dated the 28th of June. It was labeled "Preliminary," and it was our judgment at that time that that was our intention. Our intentions were expressed in there. And there are four pieces to that program plan.

There is the letter signed by Mr. Cain. That is followed by, I think, a four-page document that describes the roles of all the participants in addressing the 23 issues. That is followed by some detail on each issue which is, in itself, kind of a mini program plan. And that is followed by the charter of the task force.

If there is anything missing in that program plan, in my judgment it would be more description on the resources and perhaps the process that is followed.

MR. EISENHUT: Let's see. Is that July 27 plan -- you submitted -- is it still the working document, so to speak, or has it changed in any way?

MR. DOBSON: Yes, it is. We thought it served two purposes. One, its direction to the people we have working on the various issues and, secondly, it's addressed to the NRC to indicate what our intentions are with regard to each issue.

MR. EISENHUT: No, I'm sorry, my question was a lot simpler. It was issued relatively early in the process that you're in. It is now a month later. Mr. Levine made the point that the process was evolving and developing.

My question is: Is the July 27, 1984, document still an accurate portrayal of the program plan today, or has it evolved in time and changed?

MR. DOBSON: There are several issues in which we have modified our methodology.

MR. EISENHUT: So what was in the letter is no longer today valid or it needs to be updated.

MR. DOBSON: It needs to be updated in the case of a few issues.

As we put the responses together, NUS participates in the review of the response. They are excluded from no meetings whatsoever that we have. They are excluded from no places on the site. And I believe that it helps them to understand what the subjects are, what the options are, and why the solution is like it is.

I think it is helpful to them to the degree that out of that rose some comments which are helpful to us. I think that is to everybody's benefit.

If they are going to document the comments that they provide, I would simply request that they document all the comments they provide, because a lot of their comments end up

proving to be invalid when the subject is really understood or explained adequately.

Anyway, when we get done with our response, the last step is to address the safety significance in terms of fuel load and power ascension.

The validation process is basically as described here. LP&L goes line by line through the responses, and every item of fact is annotated. The backup for that factual statement is either copied and put in a folder or there's an indication as to where it can be found, so that should anybody want to come along behind us and validate the response, it's a little bit easier to do so.

We have a detailed joint review of the written responses. The project principals, as Mr. Leddick indicated, would be myself, Scott Lockhart, who is the representative of our plant manager, Ross Barkers, Ken Cook, Ray Burski, and Tom Gerrits.

We go through them in great detail. They are forwarded to the SRC subcommittee via Ken to get their responses or comments, and they are forwarded at the same time to the task force for whatever comments they care to make.

Following all of that starts the task force independent validation. In actual practice, the task force independent validation sometimes gets ahead of our completion of the response. They have people there, and the people have started

based on a draft in some cases.

We, of course, have tried very hard to insure that the scope of our reviews and our corrective actions fully address the NRC concerns. In some cases we think it's justifiable to use a sampling process to insure that the concerns are addressed adequately. And when we do that, we will commit that we are going to provide the justification for the sampling size.

The NUS support group has hired a consultant who I think is quite noted in statistical sampling, and we have asked the NUS if they would provide a review of our sample sizes and the validity thereof.

All of the reinspections that are being done and will be done are managed by LP&L directly. They are by formal procedure, approved by Mr. Gerrits. They are done with personnel qualified to ANSI 45.2.6 of the '73 versions, and they're documented. And those would be part of the audit package that the NRC could utilize.

MR. HARRISON: Who is the NUS consultant you're going to use for the sampling?

MR. LEVINE: Dr. Horner, Ted Horner.

MR. DOBSON: Mr. Eisenhut, the next thing on our agenda was to have been Issue 16, which is interviews with QA/QC personnel. We have been told you might have to leave.

MR. EISENHUT: That's fine, I would continue down

your agenda as you planned.

MR. DOBSON: You mentioned Issue No. 1 several times, and it kind of addresses in large fashion the role of the task force. So if you'd prefer --

MR. EISENHUT: That's fine if you'd like to switch to No. 1.

MR. DOBSON: Issues 1, 10, and 20 all deal with inspector qualifications.

A brief description, if you are concerned, is that we may have had safety-related systems that were inspected by personnel who weren't properly qualified for their job. Your direction was different for the three issues. In the case of Issue 20, it dealt with GEO testing personnel, and the direction was to provide further assurance that they were qualified to do the job.

In the case of Issue 10, that dealt with J. A. Jones and Fegles, and you indicated we were to insure their qualification in accordance with the project plan, and then describe the adequacy of the work that fell within those contract scopes.

In the case of Issue 1, the NRC direction is as specified here. What that says is, "Verify the credentials of 100 percent of the site QA/QC personnel; reinspect the work performed by inspectors found unqualified." And then as a follow-on, "Verify certification of remaining site QA/QC personnel to ANSI 45.2.6 - 1973."

So Issue No. 1 is the common thread to the three issues.

I have to point out that there is a change in the program plan from that that was submitted on July 27, and I will describe what that is. But let me say this is probably our toughest issue in terms of both manpower and time, and we take it very, very seriously. When it is done, we believe it will reinforce our conviction that we have provided a good product and the plant is absolutely safe to operate, and we believe it will convince the public and the NRC of that fact.

On that basis alone, the effort is worth the time and the trouble. And I have to admit that based upon our efforts to date, in the case of several contractors it was warranted.

MR. EISENHUT: We said that unqualified inspectors may have conducted inspections on safety-related systems. You have concluded that there were in fact unqualified inspectors who --

MR. DOBSON: I'm going to choose my words carefully. It's a long process to validate credentials of contractors that have been demobilized for some period of time.

MR. EISENHUT: Yes, sir, I understand.

MR. DOBSON: You have to go back to the high schools and previous employers and that sort of thing. Where we stand today in that process it indicates to us we have some contractors in which we are going to have to justify the satisfactory

completion of the work that they did inspect. Somehow we are going to have to do that.

MR. EISENHUT: Because you could not find them or because you have concluded they did not, at the time they did the inspections, possess the appropriate qualifications?

MR. DOBSON: I could answer your question with one word "Yes." There are both of those.

MR. EISENHUT: Both of those cases?

MR. DOBSON: There are cases in which you just can't find the data.

MR. EISENHUT: No, I appreciate that, any time you go back to this large number of people at this point in time.

MR. DOBSON: That's right.

MR. EISENHUT: But I take it there are some in the other category also.

MR. DOBSON: There are cases in which so far the indications are that there were discrepancies in their backgrounds or their education.

But once you get to that point, you work on it very, very hard, because that's a tough thing to say about an individual.

I think for those who aren't really involved in the inspector qualification process, this might be interesting. I think for some of the people here it's very simplistic.

The change to our July 27 program plan -- we are

committed now to validate the credentials of all site QA and QC personnel.

MR. EISENHUT: I've got to back up to the more generic question. If you made changes to the July 27 program plan, I would think that is something you would want to formally submit for revision to that program plan posthaste, even if it is a minor change, because we are developing our reverification and rereview program, matched against your program, and NUS is matching theirs against yours. Granted, from what I understand, they are close enough linked that they understand what you're doing as you do it. I would think those are the kinds of things you would want to formally tell us to correct this change.

MR. CAIN: My impression is that we have corrected the changes, perhaps not formally but certainly informally; that there has been ongoing dialogue between ourselves and the NRC as to what we're doing and how we've gotten where we are.

MR. EISENHUT: I appreciate it very well. We have had people at the site back and forth, and I'm sure there has been a dialogue where people know there have been some changes. However, formally the proposal of record is the July 27 letter. I think it's something you ought to update. And I think, following the flavor of the previous comments, you ought to look at the details in there and amplify those to the extent you can following today's discussion.

MR. CAIN: To the extent that we have not done so, we will.

MR. EISENHUT: To the extent you have not done so formally.

MR. CRUTCHFIELD: Dale, I'd like to ask you: What the hell is the difference between what's up there and what you have proposed? As I read the first sentence in your proposal of the 27th, it says, "A verification program has been established to review the professional credentials of 100 percent of the site QA/QC personnel, including supervisors and managers."

MR. EISENHUT: The reason I reacted is because there are subtle differences, and that's why I think it is very important, so that the staff appreciates those subtle differences, that you update the proposal.

MR. DOBSON: It says that it be done on a sampling basis in some of the contracts. Now we are saying we are going to go back and for every individual that was on the site validate the credentials.

MR. EISENHUT: With no assumption of sampling techniques and programs whatsoever.

MR. DOBSON: Not in this part.

MR. EISENHUT: I'm only talking Item 1 here. And that makes this matter to some degree a lot easier for us and a lot simpler. We don't have to discuss bringing in expert

statistical samplers. Frankly speaking, I am very encouraged to see that you've done this because it shows that you are going to go to revalidate the credentials of all site QA/QC personnel, including all contractors in toto, which is a much easier job from our standpoint, a much harder job from your standpoint.

MR. DOBSON: You don't need to be in such a hurry to check us on this one.

(Laughter.)

MR. EISENHUT: I might do that to make sure, because the kinds of questions I'll ask are: Who is the checker? What is the qualification of the checker? How is he going about doing the checking? So if, in fact, your rechecking methodology we have a problem with, we would certainly interact with you very early on that, and I'm sure you would want to do that.

MR. DOBSON: I'm going to cover that later, but we are going to request just that. Because it would be very painful for us to go two months down the road and then have to start something over again.

The validation of the inspectors will be against 45.2.6, dated 1973. We could talk about that a while. There are two ANSI standards and there are two reg guides and there is a circular and there is a PASR and there is the Green Book. Mr. Harrison and I had that conversation, and I ended up nodding my head this way (indicating). And I understand the

basis for the direction and I don't disagree with it.

Getting down to the inspectors themselves, there are three levels, of course, III, II, and I, and that is the order of merit.

Level II: The standard said that the guy has to be a graduate of a four-year engineering or science college, plus have two years of inspection experience in a related industry, or be a high school graduate plus four years of inspection experience in a related industry.

At the top of that it says that those are not absolutes; other factors may be substituted.

Between that and the '78 standard, they indicate what kinds of things might be substituted, and it has to do with training programs and that sort of thing.

The bottom line in the ANSI standard indicates that they must be competent to perform their function.

Now, this gets subjective. It just invariably gets subjective.

What if you have an individual who has three years of college in engineering and science and three years of experience? How does that balance?

What about the fact where you have months on-the-job training followed by an exam? What do you do with that? How much credit can you take for that?

What do you do in the case of a pipefitter-welder who

has 10 years' experience as a pipefitter-welder? Should that be ignored simply because he wasn't an inspector?

So it does get kind of subjective. I'm going to come back to that a little bit later.

I'd like to briefly address the basis for the NRC direction and at the same time the cause of the concern. They are both the same.

At the Waterford project, the inspectors were qualified by the individual contractors. Their contract requirements varied and their QA programs varied. So there is variance across the site.

The NRC is of the opinion that we were quite liberal in the substitution of other factors, and that probably is factual. I have no basis for comparison of Waterford against other projects, but we did do a lot of substitution of other factors.

We felt that the difficulty of performing as a Level II at Waterford might have been simpler in some cases because our Level II inspectors, in the case of most contracts, did not perform nondestructive examinations, which could be considered the toughest part of the Level II job. As I said, the contractors have for the most part demobilized, and we have the records that they left behind. They have the records that they took with them. So we have to go back and put the two back together and see what more information we can put in each

individual folder. And I would say that we are getting much better cooperation from the contractors and from the schools and the previous employers than we anticipated that we would get.

Some of them asked for a letter of authorization from the individual being talked about, but for the most part they are quite frank in responding.

Our process is that there are cases in which, based upon the files and successful validation -- let me go back.

There are folders that indicate that the individual, based upon successful validation, was certainly fully qualified. There are cases in which it is questionable, either because you don't have enough information or because some of the information you have doesn't look quite right, for whatever reason.

Then there are those whose qualifications are not verifiable. You cannot get the data, or the data you have have some inconsistencies in them. They are not qualifiable. I'm not going to say they are unqualifiable, but I am saying they are not qualifiable in the sense of ANSI, the '73 version.

In any case, the questionable ones have to be resolved. They have to either be qualified or they have to be put in the "not verifiable" pile, one or the other.

At that point, because of the subjectivity and because of the layering process that I will describe in a minute, we have got to come up with some kind of criteria to reduce that

subjectivity so we at the site buy into, "Yes, these are reasonable substitutions, and those are not reasonable substitutions," because of the degree of substitution that was done. So we are going to put that together, and we certainly will share it with the NRC when it is put together.

MR. CRUTCHFIELD: Again, this is a situation where, to discuss that ahead of time, before you are actually getting into that subjective process, would be most beneficial for both of us.

MR. DOBSON: Yes, I absolutely agree. Mr. Harrison was down last week, had fruitful and candid discussions with myself, Tom, C. J., and I think some of the personnel from Ebasco, and that was helpful to us.

Reinspections. There have been a lot of reinspections performed on the site. Hangers have been reinspected; piping has been reinspected. The quality of our NDEO piping, we believe, is as good as exists anywhere. The piping was, after all, signed off by ANI. So should someone find something that is not right with Tompkins-Beckwith, then you have the issue of, "Is a reinspection really necessary in order to insure the confidence that we need?"

We intend to be conservative in our approach, and we recognize that the burden is certainly on us. When we find inspectors who we cannot validate their certifications, the burden is on us to justify whatever level of reinspection we

feel is appropriate.

MR. SHAU: For areas where reinspection is not possible what is your plan?

MR. DOBSON: That's a tough question. We haven't gotten to that point because we are still in the validation process. Certainly we have high hopes we won't have to get to that point. But you're talking about Cadweld --

(Inaudible.)

MR. DOBSON: Perhaps by analysis, perhaps by some kind of a statistical justification of the data that we do have.

I don't know; I don't know. We haven't had that problem yet. But that is the hardest part, as I understand it.

Validation of remaining QA/QC personnel to ANSI 45.2.6 - 1973.

MR. CRUTCHFIELD: What is the difference between the first bullet and the last bullet?

MR. DOBSON: I think the secretary got ambitious and got carried away.

(Laughter.)

The reinspections have to do with the nature of the work: What was the work? How many overinspections were performed? How many reinspections were performed? The nature and the number of the nonverifiable inspectors.

If you have a contractor in which, say, 20 out of

25 come clean as a whistle and you just can't get the data on the other two, would a reasonable person really suspect the other two, absent just the plain ability to get the information?

We will address that as appropriate.

Then the nature of the testing and inspection that was done. We have cases where individuals might have been qualified to a pretty high level but never really did the inspection that would have been expected of them under that level.

So those factors all have to be considered.

MR. HARRISON: Dale, before you leave, I'd like to say on the factors not being absolute or other factors or competency to perform functions as being subjective, I think we understand that. And what we are looking for is a basis to address those factors, as you say, to minimize the subjectivity. And we are looking for documentation for an individual that maybe did not have a high school degree that was testing whatever or inspecting whatever, the basis for why that person was certified.

And I think we know it's not a hard and fast rule. As long as you document that activity adequately, that's all we are looking for.

MR. DOBSON: I understand that.

MR. HARRISON: And we are willing to periodically come to the site and evaluate this process as you go forward so that we can assure that we think you're doing what we want

and at the same time you won't be spinning your wheels.

MR. DOBSON: It is the critical path, we believe.

MR. HARRISON: Okay.

MR. DOBSON: To capture another part of the basis for the NRC concerns, the contractors didn't do a very good job in most cases of validating the credentials -- the foundation upon which the substitutions were made, in other words. They substituted other factors for lack of something over here (indicating). Maybe the guy had two years' experience, but nobody validated that two years. And that's another part of the issue, and we understand that.

MR. CRUTCHFIELD: Are you going to have available for us a list of qualifications of those individuals who are looking at the qualifications of other folks, a list of names as well as their qualifications?

MR. DOBSON: Yes.

MR. CRUTCHFIELD: Some of them, Saul, are part of the list that you sent us?

MR. LEVINE: No.

MR. HARRISON: Last week I discussed this with Mr. Gerrits and Mr. Savona about making sure that the people who are involved in this process for LP&L have also been checked out, that their backgrounds and qualifications are known.

MR. DOBSON: There is no known standard to qualify them to, but we understand they have to be capable of

performing the job. In the instance of people calling out and validating data, those are largely personnel-type individuals, as you would expect.

MR. HARRISON: We are not looking at those people as being qualified to ANSI as a Level I, II, or III. We are looking at them as being competent with the applicable type experience, training, procedure, and so forth. That's all we're really looking for, that their background checks have also been done.

MR. DOBSON: The thing I'd like to point out in this chart is that we do have some checks and balances built in here which I think you will appreciate.

Starting with Ebasco, as I indicated, the contractors are demobilized, et cetera, and it's their chore to go to the contractors, write to the contractors, bring the contractors to Waterford, and review and collect the data on all except the LP&L personnel. They also take the first passthrough of all of the contracted personnel on an initial sort in order to give us a leg up on, "Okay, how is it going to shape up?"

Background checks. They have, I think, about 20 people performing background checks. Some of those are by phone, some of them are in writing, and some of them you have to go back to the contractor's home office and do it there. They are averaging about 40 people a day, two validataions per person per day. There is that time consumed.

Then they are going to identify the inspectors whose qualifications are not verifiable. In other words, "We at Ebasco give up on these individuals."

Then LP&L, their role -- and again, I'm sorry, J., but their typist got ambitious here.

Mr. Gerrits' folks have audited and are continuing to audit and overview the Ebasco implementation of the Ebasco procedure.

LP&L will review all of the LP&L personnel, all of the Ebasco personnel, plus a 30 percent sample of those whom Ebasco found qualified. So that's an overlay there.

Then they will do the background checks on all LP&L and all Ebasco and the remainder, which is about 1170, and on that, too, they are experiencing about 40 a day. That is done by contract, and the name of the contractor is Corporate Strategy, who are professionals in that kind of business. That's the same company that does some of our security.

Then LP&L will make the final determination on those inspectors who are not qualified, or whose qualifications are not verifiable.

MR. EISENHUT: Excuse me just a minute. The second bullet under "LP&L" says LP&L will review all LP&L personnel and all Ebasco personnel?

MR. DOBSON: All Ebasco personnel.

MR. EISENHUT: The next part says that they will also

review 30 percent of the number of people that Ebasco found qualified?

MR. DOBSON: Yes.

MR. EISENHUT: Are those some of the same people in the previous Ebasco?

MR. DOBSON: No, these are other contractors.

MR. EISENHUT: You're saying other than Ebasco.

MR. DOBSON: Other than Ebasco.

The task force follows behind them. They will validate the process. They have reviewed and commented on our procedures. They are overviewing the process on a continuing basis. And they will audit the results.

Now, again the size I'm not sure, but I don't think they have come up with the size of their audit. They have not yet initiated it. And the reason therefor is there's no sense handing them stacks of folders that are unqualified. Sure, you're going to get the answer back they're not qualified.

So when we get people who we believe are qualified, then the folders go to them for their audit purposes.

And I have talked to Mr. Levine about them reviewing all LP&L personnel. So there is a layering process here which I think is very helpful.

MR. CRUTCHFIELD: How far has this process been completed? What would your estimate be on background checks? What percent are you done on that?

A CONFEREE: Next slide.

MR. DOBSON: Ideal question.

(Laughter.)

MR. HARRISON: Good timing.

MR. CRUTCHFIELD: I'm glad I read the script.

MR. DOBSON: The first pass by Ebasco -- and we haven't had time to look at it yet -- is 95 percent done. People in the A stack are qualified. If they're in the B stack, we think they might be but we need more information. The C stack is questionable, and the D pile. These look like we might not be able to validate.

MR. CRUTCHFIELD: But those in the A pile absolutely, positively meet the ANSI standard for education and/or experience? There is no subjectiveness in any of those?

MR. DOBSON: Subject to validation of credentials.

MR. CRUTCHFIELD: Correct. But they clearly meet the four years in high school and the two years in college or whatever. No question?

MR. DOBSON: Oh, no, no; you can still substitute other factors to the degree it's reasonable.

MR. CRUTCHFIELD: But what I'm getting to is the question of the subjectivity factors that you are going to lay out as to what is acceptable and what isn't acceptable. You have already made some of those judgments.

MR. DOBSON: Uh-huh.

MR. EISENHUT: Let me put it a different way. Ninety-five percent of all the people you have looked at at least once, and they fall into one of four bins, A, B, C, or D. Subjective factors enter into A, B, C, or D -- all of them?

MR. DOBSON: Yes.

MR. EISENHUT: Or is it that A, clearly in your mind at this juncture, meets the ANSI standard?

MR. DOBSON: Yes.

MR. CRUTCHFIELD: But they do subjectivity in arriving at that.

MR. DOBSON: With reasonable subjectivity.

We need additional data on about 45 percent. That puts them in the B category.

The background checks are, of course, lagging behind. They are about 15 percent done.

MR. EISENHUT: Wait a minute. You mixed A, B, C, D -- the background checks apply to all of them?

MR. DOBSON: All of them.

MR. EISENHUT: You said 45 percent are in B today, roughly.

MR. DOBSON: Yes.

MR. EISENHUT: Those are where you need additional information.

MR. DOBSON: Yes.

MR. EISENHUT: Of the ones you looked at, can you

give me a feeling for the breakdown between A, B, C, and D, just a rough percent?

MR. DOBSON: No, they are not totaled, but we can provide that.

MR. EISENHUT: All right.

MR. DOBSON: Can you, C.J., or you, Tony, give an approximation of that?

MR. GERRITS: Tony can give it.

MR. CRUTCHFIELD: Why don't you go ahead until he's ready with the number.

MR. DOBSON: Two percent of those in the first pass appear as though we will end up not being able to validate.

MR. EISENHUT: That's D?

MR. DOBSON: Yes. In some cases people have exhausted themselves and just not come up with the information, and in some cases the information that they have validated, there's inconsistencies in it.

MR. EISENHUT: In your A, B, C, D, as you go through the validation process, it ultimately boils down to, to put it a different way, Group 1 and Group 2, or A and D.

MR. DOBSON: A and D is where we're heading. Ultimately the B and C piles have to go one way or the other.

MR. EISENHUT: And we agree they are going to A as being all right, or D, additional work required.

MR. DOBSON: It's very possible that A, when you

get into the verification process, will slip over into the D. It's always possible.

MR. EISENHUT: Yes; good point.

MR. HARRISON: As an example, when I was there, with J. A. Jones there were a considerable number within the B and C category, but the Ebasco people had just returned from J. A. Jones and said they thought they were going to be able to resolve almost all of those issues. So all the Bs and Cs could become As.

MR. LEDDICK: We've got to move them one way or the other. We would expect most of them would move to the A but some are certain to move to the D.

MR. PERANICH: I'm looking at your method for moving them into the A category. Will it be strictly based on the documentation background, factors other than reverification of the work they did, or will it include reverification of the work they did?

MR. DOBSON: Reverification would be limited to the people who you can't validate credentials on.

MR. PERANICH: I just wanted to make sure what step in the process you were going to use that mode of verifying their work or their qualifications.

MR. DOBSON: I'm going to discuss it.

MR. HARRISON: One other questions before you continue. The 95 percent complete on first pass, is that the

Ebasco effort?

MR. DOBSON: That's the Ebasco effort; yes, sir.

MR. SHAU: After you look at A, B, C, and D, do you have a criteria for A, no action; B, certain action; C, certain action; D, certain action?

MR. EISENHUT: No, because they ultimately end up in A and D only. You either agree that the person was qualified and his inspections are valid, or you agree that his work was not valid.

MR. SHAU: A is no action, B is certain action, and C -- it's on a case-by-case basis?

MR. LEDDICK: We'll get to that. What do we do about the Ds? That's the key.

MR. DOBSON: To date, it looks as those six contractors on the top might come clean (indicating).

In the second group of contractors, reviews are in process and additional data are required. They are just in never-never land right now. We can't go one way or the other. We're not saying there's anything suspect about these contractors (indicating). It's just that we're not there yet.

The review is in process in the case of Mercury, and we believe that it is to our advantage at this point to start an across-the-board reinspection in the case of Mercury for work that we have not reinspected before and can take credit for.

We would hope that would come out cleaner than that

and maybe it will. Because of the timing involved, we have started an across-the-board sampling process.

We have also started through the records on Mercury. And the way you find out what an individual inspected, you go through all of your files and you extract off his initials on exactly what the individual reinspected. It takes weeks to do that. So when we get done with the Mercury validation, we will also, having gone through the files, be able to pair up what an individual did inspect.

Now, we are not saying that we are going to go out and reinspect his work. We are kind of coming at it from both directions. We are starting with an across-the-board process, and we are doing this as well. So somewhere we'll meet in the middle here.

We hope this becomes a best seller (indicating). If you want some detail on this, I'm going to have to call on somebody else.

This is a schematic sketch, a simplistic diagram on what the scope of Mercury's work is. There's a piping run that probably was put in by Tompkins-Beckwith. They put this out to the first isolation valve, and here is Mercury's work (indicating).

Here's the tubetrack and the seismic supports (indicating), and here's the anchors over here and the instruments over there (indicating), again on probably a seismic

support.

Categornized down the sides here are the things that have already been reinspected (indicating). Again, the burden is on us to validate the fact that we can take credit for those reinspections based on who did the reinspection. I understand that. But what we have started is a 10 percent program on things that have not been reinspected. Now, we are not saying the 10 percent is it. We are saying we have to get it started and we started on a 10 percent basis. We can expand the sample size as it appears necessary.

In the case of other contractors where any reinspection might be required, we would hope to be able to come up with some kind of a display which would make it easier to understand.

MR. EISENHUT: In the boxes where it refers to NCRs specifically by number, what does that mean on the chart?

MR. DOBSON: The disposition of these NCRs, some inspection had to have been done. If you had a bad weld on a seismic support, the disposition of the NCR, you might have had to have gone back and looked at other seismic support.

MR. EISENHUT: So under "Seismic Supports," it says Ebasco QC inspected 39 percent.

MR. DOBSON: That's what it says, but I'm not capable of talking about that in detail.

MR. EISENHUT: I'm just trying to understand this chart, because you said at the right are items that were

reinspected. So two things were reinspected, following those four NCRs and the Ebasco QC inspections, or was one the result of the other?

MR. DOBSON: I'd have to ask Mike Yates if he knows the answer to that.

MR. YATES: What is the question?

MR. EISENHUT: I'm trying to understand what this box to the right, as one example, means.

MR. YATES: The Ebasco QC reinspection was done as a result of our review of the documentation, our QC document review group. The NCRs are, generally speaking, additional reinspections over and above the 39 percent done as to certain problems.

MR. EISENHUT: All right.

MR. DOBSON: We were discussing this earlier this morning amongst ourselves, and we think this is a conservative list. This is Ebasco's first passthrough of major inspections that have already been accomplished in the case of Mercury. Startup people examined those lines. ANI examined those lines. So we have other sets of eyes looking at the work. We really have a high degree of confidence that the work as installed now is quite satisfactory.

Prior to the start of an inspection or prior to the increase in an individual qualification level, a package will be put together that will include his resume, the certifications,

and the validation of the credentials.

Status: All reinspections stemming from this and the CAT inspections are being performed by personnel who we have gone back and requalified or validated the qualifications to the '73 version.

Verificiation of the qualifications of the remaining site inspectors has been accomplished. However, we have not yet completed the validation of all of their credentials. In some cases that just takes time. And we realize there is a little exposure there but I think we can overcome that.

Do you have a comment, Tony?

MR. CANTRONA: Somebody wanted percentages on the total amounts of A, B, C, and D. Right now we have approximately 51 percent in the A category, 35 percent in the B category, 12 percent in the C category, and 2 percent in the D category.

These numbers fluctuate, as you know, from day to day as you progress into this, but this is about what we are looking at right now.

MR. EISENHUT: Good. Thank you.

MR. CAIN: This is the first issue discussion that we have had. Would it be appropriate to get some NRC feedback on our approach to this one? We feel it may be a critical path item. Do you see any problems with what we are doing? Is it satisfactory? Adequate? Is there something else we should be

doing?

MR. HARRISON: I think the program is sound, and I think you are headed in the right direction. I know it's a big task and it's going to take a lot of time, but I think you are using the right approach.

I have suggested to Mr. Crutchfield and Mr. Eisenhut that we be involved periodically throughout this process until you are done to make sure that we are going to be satisfied with what you are doing all along, that the end product is something we are all going to be able to live with.

MR. CAIN: We invite your audit or involvement in any way you would like to involve yourselves.

MR. EISENHUT: You saw the preaudit last week, and you'll see it show up sort of periodically.

I second what Jay has said. I am encouraged to see you doing this in a thorough way. Obviously, the full-blown thing you could do is a 100 percent recheck, and I'm very encouraged to see that. We will continue to look at things like the qualifications, the resumes, the people doing the job how they are doing it. We will be spot-checking it. We will be watching NUS' validation and verification of the program, et cetera.

MR. LEDDICK: I think the principal reason we have evolved from a sampling technique that we thought would be sufficient to the 100 percent is that as we get into it

it appears to us the sampling wasn't enough. We are trying to do what makes sense, and that's why we have gone this route.

MR. CRUTCHFIELD: I would urge that as you get to the key locations, you get in touch with us and get back to us. When you decide what necessary reinspections you think are needed, please get back to us so we both agree that the level of reinspection is what is needed.

MR. LEDDICK: We would like to have that conversation very soon because we are right now embarking on this sampling inspection of Mercury.

MR. DOBSON: I think Mr. Harrison already looked at that, did you not?

MR. HARRISON: What's that?

MR. DOBSON: The sampling reinspection program of Mercury.

MR. HARRISON: No, I did not look at that. We talked about it but --

MR. DOBSON: It started yesterday.

MR. LEDDICK: I would say it's timely because we are starting that process, and we're trying to do the other one.

MR. PERANICH: I have a comment. Since one of the items is associated with line item (inaudible), I have no problem with the method and I think it's sound and acceptable. What is the status of the GEO? I gather that you have started in that area.

MR. CAIN: We are into that.

MR. LEDDICK: The first pass is nearly complete, and that involves all contractors.

MR. SHAU: This particular issue you address, Issue 1, are you also going to address Issue 10?

MR. CRUTCHFIELD: It's 1, 10, and 20.

MR. SHAU: You have no problems with J. A. Jones so far?

MR. DOBSON: The numbers I have don't reflect the input that the people got from Charlotte in the case of J. A. Jones.

MR. CANTRONA: The people in Charlotte, J. A. Jones, will have to submit more information to us.

MR. LEDDICK: As I recall, most of the J. A. Jones people were in Category B.

What about Fegles?

MR. CANTRONA: Approximately 8 A's with Fegles and there are some B's in Fegles.

But as I say, these numbers could fluctuate from day to day. A guy could be a C and the next day you get something in the mail and it changes. It's a living document.

MR. CAIN: Could we have some guidance on our program now? Do you want us to go into the next item? Do you want to break for lunch?

MR. CRUTCHFIELD: I think it would probably be

worthwhile to break for lunch and reconvene at about 1:30. That would give everybody adequate time to get back. How long do you think you have in the way of presentation?

MR. CAIN: We would like to and have planned for addressing Item 16, Item 4, Items 13 and 6, and Item 23, which we have prioritized as having a higher priority.

Now, we have prepared to talk about any of the items that I have not mentioned and we have personnel here to get into whatever technical depth the NRC would like to do so.

MR. EISENHUT: Yes, I guess there's another side to this. One of your bullets in the previous slide -- to make sure you understand the concern as we had it, I appreciate that as you look at it the concern may become a bigger concern. I hope it might even become a bigger concern for you in some cases. But if there's any information you need or any questions you have of any of the people, make sure that you add those to the list, too.

MR. CAIN: In some of the presentations we conclude with questions to the NRC.

MR. EISENHUT: Good.

MR. DOBSON: My question on these three issues is: Is there any information that you have at your disposal, via draft SSER or whatever, that we don't have with respect to Issues 1, 10, and 20?

MR. CRUTCHFIELD: I don't believe so.

MR. DOBSON: The other comment was that we do -- we

really do -- request that Mr. Harrison or whoever he designates, or Mr. Peranich, come down and make sure you are going to be satisfied with the results.

MR. CRUTCHFIELD: We will be doing that regularly, rest assured.

MR. LEDDICK: We do think that is important. We really don't want to have everything in series. I don't see any indication that that's the way it would be.

MR. PERANICH: What is the status of the GEO percentagewise so I can get a sense of the schedule?

MR. BURSKI: In the sense of completion? How far are they along?

A CONFEREE: About a week and a half.

A CONFEREE: Would you run over the list of the items you consider the priority ones again following the 1, 10, and 20?

MR. CAIN: The next item we would propose discussing is Item 16, then Item 4, then Item 13 and 6, and then Item 23, and any other item in whatever order you all want to talk about.

MR. CRUTCHFIELD: We will give you some guidance after lunch. I would urge you to get your questions together so if we don't have enough time to cover the remaining issues we can at least answer your questions.

MR. LEDDICK: A lot of them center around discrepancies between Darrell's letter and the draft SSER.

MR. HARRISON: There was one issue that was not

addressed in Mr. Eisenhut's letter, which I brought to Mr. Dobson's and Mr. Gerrits' attention last week, on missing NCRs, that that should be expanded to include Mercury. That's the only one I could think of.

MR. DOBSON: Okay.

MR. CRUTCHFIELD: All right; 1:30.

(Whereupon, at 12:25 p.m., a luncheon recess was taken, to reconvene at 1:30 p.m.)

AFTERNOON SESSION

MR. CRUTCHFIELD: Why don't we pick up where we left off.

MR. LEDDICK: This is Item 16. This has already been submitted to the NRC.

First of all, description of the concern can be summarized pretty quickly, and that is that the interviews were not vigorously pursued for root cause, safety significance, and generic implications. The investigations were not timely. The LP&L program was not independent nor formal, and senior management was not well-informed.

I think that summarizes the concern.

Some of the characteristics of the initial program: It was voluntarily initiated, due to our concern about much more attention on allocations at that point in time, and we did conduct the initial interview program in January in a timely fashion, 407 people. It was limited to all QA and QC people on site. It was conducted by members of our LP&L QA staff. However, the exit interview program -- all of the people who were interviewed in the exit process had been interviewed previously. However, the follow-up on that was not timely at all.

The program was not auditable. Systematic records were not maintained on the follow-up. That doesn't mean there were no records, but they were far from systematic.

Interestingly enough, in that initial program, 72 concerns were identified among the 407 interviews. Thirteen of those were identified as requiring corrective action. Four of them involved procedure revisions. Five of them had impact on NCRs in one way or another, particularly in terms of our going back and reviewing NCRs on a fairly large scale. There were three records review impacts and one limited inspection that resulted from that.

As of July 1, there had been 174 exit interviews conducted by our people in the same fashion, and several additional concerns were identified, one which required corrective action.

The reason I say "several" is because that whole program was inherited by what I'm about to tell you, and that's the new program.

There was a review by our Independent Safety Engineering Group in June of the program up to that point, and they did in fact uncover, to the best of my recollection, another issue that had fallen through the cracks, that had been in the original program.

MR. CRUTCHFIELD: In some cases in the exit interviews, one of the problems we had was there was information given that appeared to warrant further elaboration from the individual. Were you able to go back and talk to those people?

MR. LEDDICK: Let me talk to you about what we are

doing now. I think you'll find what we are doing now answers that concern in spades.

The program did have some benefits. I think it was of significance that the majority of the people that had the opportunity did not have any concerns. It is also true that many concerns, as I just pointed out, were identified. It is also significant that there was follow-up and corrective action in a number of cases.

The program shortcomings are also pretty evident, and NRC certainly brought those out. That is, it was far from auditable, the program. There were no formal procedures that dealt with how it should be operated. And the interviewers were QA people who were not trained interviewers, no doubt about that.

As a result of our own and your concerns, we did, as quickly as we could, establish a new team under another format. We hired Quality Technology Company, an independent consultant that has already been operating in the Wolf Creek site. And the people that they have assembled down there -- and they are still assembling their team but their team is pretty far along toward being assembled now and I think has some pretty good people in it, and I have some resumes with me if anybody is interested. Several of these are former NRC people. One is a former FBI agent who happens to be a lawyer, who also has been a sheriff in a local parish. It looks like

the people that QTC is assembling are quite well-qualified in this business.

This team is functioning administratively out of the quality assurance organization for budgetary purposes, but the team leader, who is Scott Schaum, former senior resident at Wolf Creek, reports to me directly.

This reporting involves almost daily sessions in which we talk about things, plus weekly reports, monthly reports which take into account trends, status reports on various things that are happening. It's a very involved program but there is regular reporting in a number of different ways.

It's an auditable program. It has formal procedures.

Confidentiality is paramount. And, frankly, although I have access to the names of people that have concerns, I have never exercised that at this point in time. I would think there might be occasions where I might. But right now it is operating completely confidential.

There is aggressive follow-up because the whole program deals with not only responding to people who have concerns but taking action on these concerns with the appropriate organization in my organization, plus following up on that.

All personnel are being given an exit interview -- given the opportunity for an exit interview, not just QA people but all people.

Finally, it is being conducted retrospectively as well as prospectively. That is, they are dealing with every individual who leaves, say, plus walk-ins. And I'm kind of interested to see they are getting walk-ins frequently that probably in the past have gone to the NRC. I really do believe there are people coming in there who would have gone to the resident inspector's office if this hadn't been available.

Also, they have prioritized all of the past concerns that took place from the beginning of January up until the time they went into operation. They have prioritized and they are working on those with highest priorities first, going back and revisiting the issues, insuring that they were properly analyzed, and that proper action was taken.

MR. CRUTCHFIELD: Are they trying to contact some of the people that have since left?

MR. LEDDICK: They are.

MR. CRUTCHFIELD: As part of this process is there a feedback to the individuals of what you guys found and what you're doing about it?

MR. LEDDICK: Every attempt is being made to do that, yes. I think I'd have to characterize where they are now. I believe they are fully operational. I believe so far that it's operating awfully well, and that to date there is probably still more learning process to go on. But all evidence that I can get is that this program, which is about a month old, is

functioning well. And I have to say that hindsight is marvelous. If I had known six months ago what I know today, I'd have had those people down there in that time frame, no doubt about it. It really is the right way to go.

MR. EISENHUT: Do they end up, then, at the end of the process with a record which I'll call an auditable record, that if we wanted to go in and see what the concern was, how it was handled, the products, basically what was done, we could do that?

MR. LEDDICK: Certainly. And they have a whole series of records. With me I have their basic procedure that I signed initiating it.

MR. EISENHUT: Good.

MR. LEDDICK: I have some samples of some of their internal procedures. I have samples of some of the reports that they've made. There is no doubt about it that the issues they are dealing with -- and many of them on the surface have significance. Now, a lot of them remain to be closed clearly, and most of the ones that they've had to go back retrospectively to be looked at --

MR. EISENHUT: Do you have a rough idea of how many concerns, when you say the concerns they're working with?

MR. LEDDICK: They are working on somewhere around -- I have a list of it right here and they are categorized. They are probably working on several hundred issues right now.

MR. EISENHUT: Good; thank you.

MR. LEDDICK: Most of those are retrospective, but I have that information. I can't quote it off the top of my head.

MR. EISENHUT: I'd appreciate it.

MR. LEDDICK: As I said before, they are getting not just an exit interview process but they are being utilized by walk-ins, as they term them.

We have a commitment to have any safety concerns that have been identified and verified to be resolved prior to exceeding 5 percent power.

This is one of the issues that we have already submitted to the NRC.

MR. EISENHUT: Yes.

MR. LEDDICK: If there are not any more questions, I'll move on to Item No. 4, and I think Tom Gerrits is scheduled to talk about that.

MR. GERRITS: One thing I might add is that on all these concerns, each one as it's brought up is reviewed for reportability also with regard to the significance of it. We have front-end screening for reportability within that group, and if they feel it is potentially reportable it is sent directly to the group that does the completion of that particular thing.

MR. DOBSON: May I say one thing for the record.

The procedure was assigned by me for Mike. It was signed on I think it was a Saturday.

MR. GERRITS: But it was reviewed by him in detail.

MR. DOBSON: Well, it was cycling the days before that.

MR. GERRITS: The issue I am going to discuss is known as Issue No. 4, commonly called the lower-tier corrective action issue, in which there was some concern that lower-tier documents -- that is, FCRs, DCNs, EDNs, and DNs -- were not being upgraded to NCRs.

Related issues had to do with EDNs, which are engineering discrepancy notices, which were apparently being voided with no action taken.

And the overall QA program requirements for NCRs and DNs and so forth were not being complied with.

As a result, the NRC required certain actions of LP&L, those being that we should review all FCRs, DCNs, EDNs, and Tompkins-Beckwith DNs to insure that proper corrective action was taken.

By the way, FCR is the field change request; DCN is the design change notice; and EDN is the engineering discrepancy notice; and DN is discrepancy notice.

Secondly, the review was to include those steps required by 10 CFR 50 Appendix B, Criterion XVI, and 10 CFR 50.55(E).

And we are also to review for improper voiding of all other design changes and DNs and for misclassification of those documents.

In response to this concern, we responded with our plan to assess our lower-tier reporting system and to specifically review the NRC-cited examples to assure that, one, corrective action was taken and whether any safety significance, that is, reportability significance, was involved with each of those issues.

In addition to that, LP&L, we said, would review an additional sample of approximately 700 documents to provide confidence that the program was adequate.

I'd like to point out here is one area where we differed in our program plan with what the NRC had recommended. They had recommended all. We felt that 700 would be adequate on a statistically significant basis. And I'll talk a little bit more about that later.

With regard to our progress to date, for the NRC-cited examples we have determined that five of the 72 should have been NCRs. Those were reviewed for reportability and none were evaluated as being reportable.

With regard to the actual sample that we did take, which was 940 documents, as opposed to the 700 we told you we would look at -- we looked at 240 more -- 64 or 7 percent of those should have been NCRs. And, once again, none were

evaluated to be reportable.

As a result of our review of the overall system, we felt the program was being complied with, and in most cases the decision to upgrade a document to an NCR was a judgmental decision.

And the bottom line, as we have stated, was that the design change, discrepancy notice, NCR system, was being complied with.

I'd also like to say that our review, we feel, was very conservative, which resulted in an approximately 7 percent across-the-board upgrading of those documents to NCRs.

MR. CRUTCHFIELD: Do you feel comfortable that the discrepancy-nonconformance system assured proper corrective action as far as safety is concerned?

MR. GERRITS: Yes, I do. And the reason I feel that way is based on two facts. One is, based on our review of the DNs, no disposition would have changed. We have determined that the dispositions that were made were correct. So even though it was on a DN and not an NCR, the disposition was in fact correct, and it would not have been changed had it been an SER.

MR. CRUTCHFIELD: But did you get the proper, necessary reviews that you would have had had it been an NCR?

MR. GERRITS: All of these documents are reviewed according to a specific procedure. The reviews are generally the same, but there are some differences with the type of

engineering review they would get. That is one difference. And the review process, we feel, was adequate, and we did get the necessary reviews for the type of document it was. In other words, one would be maybe reviewed by Construction Engineering versus Design Engineering.

MR. CRUTCHFIELD: But if it was an EDN that was done by one of your subcontractors, it would have been resolved within that subcontractor activity, more or less. If it had been upgraded --

MR. GERRITS: If it was an EDN, it was an Ebasco document, but a DN --

MR. CRUTCHFIELD: If it had been upgraded to an NCR, that would involve Ebasco QA, and it would involve LP&L QA.

MR. GERTITS: That's true, but the process within the individual subcontractor requires a review by the QA organization, for example, Tompkins-Beckwith. Their QA would use an S-plotted procedure, and that procedure was complied with. But it would not have been reviewed by Ebasco necessarily. But as part of the program, the contractors did screen the DNs for upgrading to NCRs.

The review is different. I'm not saying it's exactly the same. But our review indicated that the contractors' programs were complied with. Many of the DNs were on very minor issues.

MR. CRUTCHFIELD: So you're saying, as far as you are

concerned, 93 performance at an acceptable level is satisfactory.

MR. GERRITS: What I'm saying is that, based on the results of our sample, we have 95 percent confidence that 95 percent of the unsampled documents contain no safety significant reportable issues. That's what I can say, based on our sample. And we don't believe that any further review is necessary. I can make that statement.

And we based our reject -- a reject would have been if a document should have been reported under 55(E) or Part 21.

MR. CRUTCHFIELD: Of the problem documents or ones that you thought individually should have been upgraded, are they concentrated in any particular subcontractor or contractor, or are they just generally spread across the board?

MR. GERRITS: I don't believe they were concentrated. I think it was just across the board. That is my understanding.

There was some percentage that, with the benefit of hindsight, it appears as though they should have been NCRs. We have called them NCRS, or they should have been NCRs. It was a fairly low percentage in our estimation, especially the way we reviewed it with a fairly conservative approach.

MR. SHAU: But if two different-type people looked at the thing, would they come to different conclusions, the NCR or the DN? Would they arrive at different conclusions?

MR. GERRITS: Design Engineering did review these

documents. The Design Engineering people that did this review didn't come to any different conclusions. The dispositions they felt that were identified on the DNs were adequate.

MR. SHAU: So even if it was an NCR, you think they would have come to the same conclusion?

MR. GERRITS: We took an independent look at 940 of the total population.

MR. SHAU: Could you give us an example?

MR. GERRITS: I don't have those at my fingertips.

MR. HARRISON: Do you recall what the total population was?

MR. GERRITS: Yes, I do. It's over 30,000. It's approximately 30,000-plus.

MR. HARRISON: Let me ask you this: One of the documents that I recall was, for example, a damaged cable that was reported on a DCN and was resolved on a DCN. One of the problems we had, it wasn't on an NCR. It appeared the condition was reported on a DCN, was resolved on a DCN, and was cleared on a DCN. We could find no inspection records for that cable repaired other than documented.

The concern is not just that the system wasn't properly used. That's sort of a peripheral-type issue. A design change was used to identify a nonconforming condition. The corrective action concern is: Was the proper corrective action taken? And if it was, was it documented?

MR. GERRITS: Yes, I understand your concern. I can't speak to that specific issue. We'd have to sit down and look at it. But I understand that concern, yes.

MR. CRUTCHFIELD: When you come in with your specific answer to No. 4, you ought to be sure that you address that issue.

MR. GERRITS: Basically you're looking at an inspection issue there: Was it completely closed out? Yes, I understand.

MR. HARRISON: You are also at a little bit of a disadvantage because the examples we cited in the SSER -- you haven't had that information available to you yet, so I think if you had that it would lay it out on the table for you so you could evaluate it a little more clearly.

MR. GERRITS: The focus of our response was on the upgrading issue. That's what we really looked at, whether a document was appropriately upgraded, and that's what we really focused on, based on the information that we had.

MR. CRUTCHFIELD: But as a key part of that, we want to be sure that the process served the function it was supposed to serve, that a nonconforming condition was handled as a nonconforming condition and not as a design change.

MR. GERRITS: Yes. As I understand it, one of the concerns also was that some of the FCRs were written on after-the-fact deficiencies, which would tend to put that in

the nonconforming area.

MR. HARRISON: Another example is the snubbers we talked about in our June meeting, that you procured a standard travel-stop snubber, and it was resolved on a design change. And we couldn't tell from interviewing your staff what was installed and what wasn't installed. What's installed is what we are after.

MR. GERRITS: I understand.

MR. CAIN: Are there other examples that we might benefit from having access to that are in the SSER?

MR. HARRISON: Those are the two that I can remember right offhand.

MR. CAIN: Snubbers and -- ?

MR. HARRISON: There was a damaged cable, and there were some others. These documents we spelled out in the letter to you I think are the examples. We didn't write up what they were, but the documents identified were the ones that were in question.

MR. GERRITS: Like I said, we did vary from the NRC direction with a sampling plan in this case. Would you have any comment on that? It is something I need to bring out right on the table, that it is different from what you had recommended, and we would like to get some feedback on that.

MR. CRUTCHFIELD: We haven't talked to our sampling people in detail. It's good to know this one is there and

we'll focus on that very promptly.

MR. GERRITS: We feel this is one that does lend itself to that type of approach, and we would like to have some feedback on it.

MR. SHAU: In Issue 4 and Issue 14 there are some similarities. Issue 14 is speed letters and EIRs. Are you going to address that?

MR. GERRITS: No. Someone else is going to cover that section.

MR. GAGLIARDO: One of the things I think you should address also in your response, not only on this one but on certainly No. 1 and any of the others, is the implications and what you are going to do to assure that something like this does not occur as you get into the operation phase.

MR. GERRITS: Yes.

MR. DOBSON: That is covered.

MR. GERRITS: That is covered.

Now, on the "Action to Prevent Recurrence," with regard to operations, all hardware problems are identified on our LCIWA, which is Conditions Identification Work Authorization. These are evaluated for nonconforming conditions and reportability. We have only one document for that phase, other than receiving inspection documents.

Also, problems that are encountered during the installation of plant modifications which involve design

changes require a change in the design be approved prior to the implementation of the change in accordance with the station modification program.

So those two areas we already have in place and should prevent the types of questions that arose in this particular issue. This is strictly related from now on to the operation phase.

MR. CAIN: C. J. Savona.

MR. SAVONA: I'd like to talk to both Issue 13 and 6.

Issue 13, as you described it, there were 10 NCRs that were not in the card index file, and others you found were missing from the Ebasco QA vault in connection with the card index file.

The action that you asked us to do was to obtain the missing NCRs, explain why they were not maintained in the filing system, and review for proper voiding, and assure that NCRs are properly filed for tracking and closure.

I'd like to start off, first of all, by let's find out what the source of the problem was. What we did was we wanted to investigate and explain the source of the problem.

Basically the problem came from two sources. Initially when Ebasco first started to track NCRs, they were being tracked via a manual log and not separate and definitively located like in a nice little computer system or otherwise. That was number one.

Number two, Ebasco at one point in time co-located, Ebasco engineers with Mercury -- during that time Ebasco's engineering personnel calling the QA people to obtain numbers. Consequently, with the two-shift effort, the same discrepancy was being recorded twice. In other words, we were using two Ebasco NCR numbers against the same discrepancy. Consequently, what occurred was one would wind up being voided and nulled out because it wasn't necessary to have two items against the same one.

Basically that's where we came from, and that's what we feel the problem was.

The next item was to determine the status of the NCRs that you specifically questioned. We did that. And on six of those they were in fact truly voided, and we did obtain copies of the voided NCRs or the actual NCR itself, and it was in fact voided. Each one of those NCRs was reviewed to determine that they were properly voided.

The other four -- we also found one additional one in the same pile so it turned out to be five -- were voided also. However, we could not resurrect that particular NCR, but we were able to resurrect what the problem was that was cited with the NCR, and we also were able to determine the date, the certain time it was issued, because of the log reading.

Therefore, what we did was reconstruct the time

frame with the discrepancy, and went back to the various other discrepancies which would have possibly elevated this thing to an NCR to begin with, and attempt to find that. In those five instances we feel that we did.

So in the case of the 10 you denoted, plus the other additional one, we feel we have satisfactorily found where those were, and they were properly voided.

However, we didn't stop there. We wanted to go a little further, because it's an awful big system. You're talking about 8,000 documents, roughly, and they are in and out of files continuously.

So what occurred after this is we attempted to take the three systems which we used, actually four systems if you count the QA card index file, and reconcile all systems that actually had any meaningful tracking on NCRs.

By doing that, we did come out basically with 14 additional numbers which were not logged in in one book or the other or could not be relocated. In addition to that, because of the fact that we were going ahead early on in reviewing NCPs, we were actually making a numerical count. As we reviewed one, it got checked off, so we knew at the end we had reviewed all NCRS that we looked at, and if we had not there had to be some that fell out of the barrel.

So in essence what I'm saying is that we reconciled all the logs, we did a numerical count, and in the end we came

out with X number, which is 14, that were ultimately missing as far as numbers were concerned. But we went back, and in looking we could not find any evidence, by going through all the logs, that those numbers were actually ever given out against discrepancy in the system. And by that, what I mean is the card system that was used to log and track NCRs, which also logs and tracks the transmittals that move the NCR in and around the site, the master tracking system which is a computerized system, which is a backup to the card index file, and the card index file itself in the vault. None of those systems had any evidence of those NCRs ever being issued at all as far as numbers are concerned. So in our estimation we feel that those numbers were never issued. There is no evidence of them ever being logged out into the NCR stream.

The last item was to correct discrepancies found. In order to avoid the problem again coming up with someone else coming back in and looking at it, the various logs that are concerned were in fact updated and corrected.

And I must draw attention to something. We did also look at New York-generated NCRs. There was a slight problem there in that the New York-generated NCRs -- their procedure didn't properly cover for voiding NCRs directly. There were, I believe, seven that came out of that. Those NCRs were resurrected; they were properly voided. Their procedure has been modified to better address the voiding of NCRs now, and I think that

problem has been put to bed.

As far as this issue is concerned, in fact it did put us on track, as we know where all our NCRs are for sure now, we don't have a problem with where they are, and we feel all actions with regard to Item 13 are complete.

MR. CRUTCHFIELD: With respect to the 14 items you folks said you had found the missing numbers, and there is no way that you can find any of those numbers, did you do any check of lower-tiered action during the time period when those numbers may have been given out?

MR. SAVONA: Yes. The interesting part about that is that all 14 of those numbers occurred in the time frame -- and I think we can take care of that -- when the Ebasco engineers were co-located with the Mercury people. That's where we feel this problem occurred. It was, I believe,in the '82 time frame. When it was recognized that this was happening, back during that frame, what Ebasco did, rather than have the engineers call in and get a number, to avoid the possibility of that happening they gave them group lots of NCR numbers to use and control so they would not be going back into the system to draw a number out. So those numbers actually all fell into that same time frame, and we believe that is the reason.

If you go back and look at the tracking systems that were employed, in fact you had three different tracking systems for the numbers. An NCR does not move without a transmittal

document being attached to it as well. And none of those systems had any evidence at all of those numbers ever falling into the system at all.

MR. CRUTCHFIELD: But if someone would have proposed an NCR and gotten a number from Mercury and someone else would have said, "No, this is not a proper issue to be an NCR" and just chucked it away, you'd have no evidence of that. That's why I'm asking whether you went back and looked at the EDNs or DNs or whatever in the Murcury files or other files to see whether there were any situations that might have been considered to be NCR conditions, that somehow were nominated and received a number because of the cohabitation problem, and then were chucked for one reason or another.

MR. SAVONA: As a matter of fact, we believe that is the case with those 14 numbers, that indeed the numbers were drawn out to be used. Consequently, take a two-shift effort. The number was drawn out on the first shift to be used against a problem. The same problem would maybe be detected on the second shift -- the same problem -- and the fellow thought he was writing it up again and drew a second number, the same one, and when the thing finally comes into being they find out they have two NCRs that relate to the same thing, and one of the numbers was actually dumped off.

The problem we have there is that obviously the administrative end of that did not catch up with itself. It was

obvious that it was detected because of Ebasco's changeover in that system and blocking the numbers to the engineers in Mercury at that time.

They all fell in that time frame, so it is fairly obvious that is what occurred there.

MR. CRUTCHFIELD: You indicated a block of numbers was given to Mercury because of the quantity that was being written up at the time. Did they fall within the block that Mercury was given or T&B was given or Fegles or somebody else?

MR. CHERNOFF: The block of numbers was issued to the Ebasco NCRs in the Mercury area after they recognized they had this problem of duplication. In other words, what C. J. is saying is they had these Ebasco QA engineers in the Mercury area upgrading a large volume of Mercury NCRs to Ebasco NCRs. You might have two engineers call in with the same number to the central Ebasco QA group, and that's where the duplication came in. So in order to prevent that situation from occurring, they issued to the Ebasco QA engineers in the satellite area, over in Mercury, a separate block of numbers. This all occurred before they issued that separate block of numbers over to those engineers in the Mercury area.

MR. CRUTCHFIELD: I understand your answer.

MR. SAVONA: I indicate all actions are complete here, but based on your question earlier about Mercury, it is our understanding that you are really looking for an accountability

of all Mercury NCRs.

MR. HARRISON: Would you repeat that?

MR. SAVONA: Based on your comment before about Mercury, I understand, I think, that you are looking for an accountability of all Mercury NCRs.

MR. HARRISON: That's correct.

MR. SAVONA: So we are going to go back and physically account for all Mercury NCRs in much the same fashion.

MR. HARRISON: One of our concerns here was that if you had missing numbers, was it a possibility that an NCR condition existed, a number may have been assigned but the condition never got reported. In other words, it was issued but it never traveled anywhere. It stopped.

MR. SAVONA: Yes. That's exactly the proposal and what we did up front with the voided ones, where we could establish the fact that we did go down the lower-tier documents and pull them out.

On these other ones, they did fall into that particular time frame and it really became a moot issue on those. But, yes, we will go back and account for all the Mercury NCRs.

MR. CHERNOFF: C. J., it should be clarified that on five of those NCRs, four of the original 10 that were identified by the NCR and the one additional one that LP&L has identified -- those NCRs were never issued. We have determined that they have never been issued. But we have also determined

that the condition, as identified in the log entry, was covered by a lower-tier document, either a DN, deficiency notice, or on an audit finding. We have put together a description of how it was handled for each of those five.

MR. HARRISON: Those were not issued; they were covered under something else.

MR. CHERNOFF: We determined that they were never issued.

MR. SAVONA: Each one of the specific 11, where it tiered down to a lower document or was voided promptly, is all put together very specifically.

MR. CRUTCHFIELD: That will be part of the package?

MR. SAVONA: Part of the package response, yes.

Issue No. 6. The concern was that some Ebasco and Mercury NCRs and EBASCO DRs were questionably dispositioned.

The action you required was to propose a program that assures that all NCRs and DRs are appropriately upgraded, adequately dispositioned, and corrective action completed, and to correct any problems detected.

Our plan is to address the specific deficiencies identified by NCR, review the EBASCO NCRs, perform an in-depth verification, a sample of EBASCO NCRs, review the Mercury NCRs, and review the DR process and the cited DRs.

I'd like to go through our progress to date.

To date the review of the Ebasco NCRs -- and I must

say that we had to put a time frame on it, so our time frame stopped us with approximately 7700 NCRs, so we could put a time line on and finish it.

MR. EISENHUT: Out of an inventory of how many?

MR. SAVONA: There's approximately 7779 or some number like that. I'm not sure.

A CONFEREE: It's 8200 total New York and --

MR. SAVONA: But we had to put a time line on it or it could have gone on forever. So we stopped at approximately 7750, if you take into consideration the issues we talked about earlier.

That was a preliminary review. We started this back in January, and we started back in January basically because of our own concerns that the NCRs themselves had some problems, very much the same concerns that you expressed, I might add.

During the review we didn't find our concerns altogether not so. We did find some problems with them, no question about that. The problems that we found basically surrounded the reportability stamp not being applied, signatures not being in the blocks, disposition possibly not covering the corrective action in detail, or the corrective action statement maybe not being fully carried out, documentation not following through on the pathway to support the fact that the corrective action was completed.

We determined to do it around mid-January, and I

think we kicked it off about the 1st of February or in that ballpark.

After the June 23 letter, I decided to increase that activity slightly and do a little bit deeper review on the balance of the ones that we did. The purpose behind that, to be very frank with you, was to determine if the defect ratio we were getting off our preliminary scanning, because it was not a detailed in-depth review at all; in fact, it was a cursory review of the NCR package frontal system -- if in fact the disposition didn't appear to address the problem, I did make them go deeper. But if it appeared to address the reportability, signatures, we just stopped.

But as of June 25, I made them go deeper anyway just to see exactly what was happening. And I also wanted to see if maybe your concerns, which were just on top of ours, made them even more of a problem. And I was pleased anyway to find out that the defect ratio -- we had about a 7 percent defect ratio on these things initially -- did not go up at all with the detailed review.

MR. CRUTCHFIELD: What type of people did you have doing your verification or reviews?

MR. SAVONA: The people I had were actually lead auditor type individuals. In fact, I have to admit to you what I did there was I started off with about four people working part time. And any time you go back and look over

somebody else's shoulder, especially when you go back and look at paper, you not only bring in the conservatism aspects but you bring in so much subjectivity because of the background on it that it all of a sudden becomes a very detailed hodgepodge.

And what I did there was I stopped it, and I put one man on it and ultimately put two. Both of them were qualified leads; both of them had detailed experience. One of them has a master's in mechanical engineering, and I think he's even a Level II, if I'm not mistaken. But both individuals have a significant amount of experience in QA as well as in auditing. That's what they were doing. They were doing package review.

Now, I didn't use a procedure. I used a work instructure. The reason I did that at first is it was meant to be a desk instruction. We weren't talking about doing a detailed procedural type review which integrated various people. It was meant for one person to sit down and do his job.

When I kicked up the process around June 25, I believe, I stuck with only one guy and let him finish out the remainder of tnem on the detailed review.

Again, like I say, the actual defect rate on those did not go up any higher. And I believe we ultimately came out with roughly 500 potential deficiencies. And if I'm not mistaken -- and Sam can correct me -- I think we're down to maybe five or six of those that are still open. The majority of them again were things of a frontal nature, and they went back

into areas like inspection reports not being available. One of the real cute ones is the typed signature of the fellow on the top cover saying, "Corrective action is closed." In that one we go back to the pink copy of the NCR which has the guy's signature on it. I guess at one time they must have gotten fancy.

But at any rate, it's that type of thing.

Looking at that, though, we still felt in our mind that we wanted to do more. So we got involved in what I'm going to call an in-depth verification. The in-depth verification was meant to do more than just simply scan the NCR and determine if the NCR was closed. But we wanted to be able to prove that not only did the NCR get closed properly but in fact that the hardware that that NCR had an effect on was appropriately corrected and the work was done.

The second thing we wanted to prove was, if in fact the NCR had some effect on as-built documentation, that the as-built documentation was upgraded properly. In other words, the SER was issued against the drawing or the drawing was appropriately revised in accordance with whatever the NCR stated.

The third thing, which is really the humdinger, is to determine that any and all inspection documentation and/or engineering justifications that reflect against an NCR were available. Could we retrieve them if we had to retrieve them?

In doing that, we threw Ebasco's procedure away and didn't even consider it. What I mean by that is if the

procedure at points in time said the documentation had or had not to be attached, we didn't pay any attention to those. We focused on whether the documentation was retrievable or available on the NCR, regardless; it had to be found.

We are still in the process of finalizing that. That also was utilized as a work instruction. One person did the entire review, period. We did not use other than one person. Consequently, if any subjectivity came in, it went in and went out.

So I feel very confident about that. And right now at this point in time I can say the hardware we looked at came out fine, very good.

On the Mercury program --

MR. HARRISON: How far along are you in that process now?

MR. SAVONA: We are probably about 65 or 70 percent complete.

On the Mercury program, in the review of the Ebasco NCRs, approximately 2000 of 3700, I believe is the right number -- don't quote me -- Mercury NCRs were in fact elevated to Ebasco NCRs. Consequently, in both the initial review that we did, plus the in-depth verification, because some of those fell out in the sample, Mercury NCRs, 2000 of each, were reviewed in the Ebasco NCR review. So that's a little bit better than half.

In addition to that, Ebasco went back and took the Mercury log, and any NCRs in the Mercury log which were indicated as void or administratively closed were also pulled and rereviewed.

And that came out how, Sam? I wasn't sure about that.

MR. HORTON: I think there were about 38 total administratively closed and void NCRs. Most of the administratively closed NCRs were of nonsafety significance. In other words, they were nonsafety B31.1. Some of it was P-2 and P-3. What we did is we went back and tracked down the documentation to show that work had been acceptably done.

MR. SAVONA: Also, in investigating other things that were done on Mercury NCRs, there was one other category on Mercury, and that was "Use as is." Per Mercury's program, any Mercury NCR that they dicated, "Use as is" out of their program was required to be elevated to Ebasco for review.

Ebasco, around October of '83, detected that that wasn't being done in total. Consequently, Ebasco issued an NCR which required Mercury to submit all "Use as is" Mercury NCRs back to them for review. And there were some 437 of those.

Ebasco reviewed all 437, and I think the number came out that 37 of those were upgraded to Ebasco NCRs and finally dispositioned. So those actually went into the lot of Ebasco NCRs.

So if you take it all into context, of the Mercury

NCRs, in total 3700, Ebasco and/or ourselves have looked at probably, as a conservative estimate, 2500 already. So we feel in that regard that the Mercury NCRs, to be frank with you, other than accountability to make sure that the numbers fanned out -- that that program is really okay and complete.

I have to mention, since I neglected to up front, we did review in fact the specific NCR concerns that you fellows mentioned, and those details will be supplied within the response.

I've got to admit -- and I think I talked to Ed Fox about this -- I can appreciate what you found when you looked at the NCRs. Indeed, it doesn't leave as clear a trail as you would like it to leave, but I think in the end we will be able to show that the documentation in fact was retrievable.

On the DRs, Ebasco has reviewed the DR process and the specific DRs that were cited within your report. One of the things that came out there was very much similar to the NCR process in that not necessarily was the documentation in total within the DR package to support the end disposition made by the reviewer.

The DR process and the procedure that was used during the records review, because of the amount of records that were being reviewed, because of the purpose in mind at attempting to pedigree records, we were not looking at hardware deficiencies or the possibility of them. We were attempting to pedigree

records.

Ebasco wrote the procedures such that they were allowed to write engineering memos to Engineering to disposition certain problems that were identified. If Engineering could not disposition it and it was a hardware-affecting item, it was elevated to a DN and then possibly elevated out to an NCR.

The unfortunate part about that is that in some cases the problems found in the DR packages were fairly generic and maybe you had one memo that may have satisfied several DRs. The cross-referencing of those memos did not take place very well.

But what was done specifically with the ones you looked at is that we did go back in there and Ebasco was in fact able to retrieve the documentation or support additional documentation which satisfied the specific concerns that you addressed.

We feel the documentation is in fact available. The unfortunate part about that is that it was a record review process; it was not necessarily a hardware review process. And the overall schema of the things allowed the sort of informal latitude in the way it was handled.

But in retrospect it appears that that does appear to be one point that is satisfiable, and it is retrievable. And it really depends on how far we want to go as far as satisfying that particular aspect. And I think we are kind of

a little bit up in the air on that one because you are back looking at records again, and it's records against records, so to speak. The appearance of the thing would allow you to think that possibly hardware decisions were being made. In reality they were not. The point is we've got to satisfy you that you feel that way.

MR. HARRISON: The big problem we had with the DR process especially was a referencing document used to close out -- maybe a memo or whatever -- couldn't be located. The Mercury files were pretty much in a state of disarray. A lot of questions we asked were resolved while we were there, but all of them were not. That's why we had to withdraw finally. You had a lot of paper, but you just couldn't put the label on where it belonged necessarily.

MR. SAVONA: We feel very comfortable and confident that the paper is there. It's not a point that it is not there. We also feel very confident that the program was designed, as it did, to do a records process. It was not necessarily meant to do any hardware process. And the procedure did in fact allow for that elevation, and we can show that the elevation occurred. What I mean by elevating is bringing it up to a DN or higher.

So the end of the line on here is just how far do we have to go in fact to get to the bottom of that particular issue. We don't feel at this time that it is a problem, but

we really don't know how far to go with it.

MR. HARRISON: So on the DR issue, you feel like you have answers for all of those.

MR. SAVONA: We have the answers specifically for the ones you mentioned, and we've gone a little further now. But in essence it's a huge program. You're talking about a lot of pieces of paper. And I guess what I'm saying is that there was a procedure in place. The procedure appears to be followed. Administratively it had a little nightmare, but you're looking at a lot of paper in a short period of time.

MR. HARRISON: Have you looked at sampling this so some type of a confidence level can be established?

MR. SAVONA: We have considered sampling it. In fact, we were talking about it just the other day, on developing some type of sampling that would satisfy that. But you are talking about a lot of paper.

MR. CRUTCHFIELD: If at some time in the future, if you have been operating for 20 years and you have a problem with a particular system or components, you are going to want to have that data available, and you're not going to want to have to scrounge around through a bunch of different trailers looking from here and there trying to track down Joe Smith to see what he knows about it or whether he has a piece of paper on it. It seems to me you need to answer the question for us and for yourselves: What are you going to do about it in the future?

So that you can at some point come back and look at those records and see what your plant looks like.

MR. SAVONA: We feel very confident with the records themselves. It's essentially the manner and way that the reviewer himself went about processing the closure of the actual record. I guess I'm saying that we feel comfortable with the records. It's the manner and the way it was handled that I would think gives anybody any heartburn by looking at it. As far as the pure record itself on the system, we don't have a problem. It's the methodology used by the reviewer in closing it that really draws attention to it.

MR. CRUTCHFIELD: But I would think you'd want to have those documents available also in the future, to see what techniques an individual used to close it out, not just that it was closed out.

MR. SAVONA: If we take into consideration that this was a record review of records that were previously closed out, I think that's the key. But I would think we could look at developing some sample methodology that would go back and do those again if that would give you a better feel of confidence.

MR. CRUTCHFIELD: I'm looking for you to have confidence in your facility, that at some point in the future if you're going to have a problem with an instrument line or a problem with the support or a hanger, you're going to want to know everything you can about that. If those documents are

scattered around the site, and at some point they may get lost, disposed of, or whatever --

MR. LEDDICK: I understand your question, and I think we need to talk about how we answer that.

MR. HARRISON: If I understood you correctly, you looked at the Ebasco NCRs 100 percent.

MR. SAVONA: That's correct.

MR. HARRISON: But you didn't look at all the Mercury's.

MR. SAVONA: Not every Mercury, no.

MR. HARRISON: You looked at 2000 of 3700.

MR. SAVONA: Yes. In our review of the Ebasco NCRs, we definitely looked at approximately 2000.

MR. HARRISON: And those 2000 were the ones that were elevated, though?

MR. SAVONA: That's correct.

MR. HARRISON: Okay.

MR. SAVONA: In addition to that, there were some 437 that were looked at in '83 by Ebasco.

MR. HARRISON: Additionally.

MR. SAVONA: Additionally. In addition to that, just recently we did go back through the Mercury NCR log and any voided or administratively closed NCRs were in fact pulled and reevaluated.

MR. CAIN: Is there any other feedback the NRC would

like to give us on this particular item?

MR. HARRISON: And on the DRs, you only looked at the ones that we identified?

MR. SAVONA: We looked at the ones you specifically identified, and we personally haven't looked at any other than that.

Sam, did you guys look at any others than the ones they identified as yet?

MR. HORTON: No. Let me say one thing. In 1982 (inaudible), a lot of times record reviewers would bring problems to the QA surveillance group that may be hardware impacting, and the surveillance group from Ebasco would go out to the field and do verifications on the as-built configuration to determine whether the document was wrong or the paperwork was wrong.

I think if you see anything needs to be done, we may need to go back to the VR program which basically is meant for cosmetic document review problems, like cross out the whiteouts or inaccurate or incomplete documentation -- something that's cosmetic as opposed to hardware.

The hardware problems -- (inaudible).

MR. EISENHUT: Just to make sure I got this together, on DRs you, as of this time, only looked at the ones we identified.

MR. SAVONA: The ones that you particularly identified

were looked at and the documentation which would support that --

MR. EISENHUT: The second part of the question is: Do you have plans to look at more than the ones we identified?

MR. SAVONA: Yes. My point is really: How deep do we go? And I guess, going back to Sam's discussion, how deep do we go in looking at something that was really a cosmetic look to begin with. And there are good indications through the system that in fact, due to the QIRG review, other inspections were in fact kicked off. I think Mike mentioned one a little earlier in Mercury. I think that was a direct result of the QIRG review.

So the program as such did in fact kick off inspections in the area of Mercury, it did kick off DNs. So the process worked. What we are really looking at is there were some administrative things in it, but basically those were cosmetic.

(Discussion off the record.)

MR. EISENHUT: On the DRs, I guess one thing that bothers me is that in our letter that went out we identified a certain number of -- I'm trying to find it -- Ebasco DRs related to packages, et cetera. We identified a short list of about 10 in here.

I guess basically the question I have to you is: You are going to have to come back with a program that shows you are now confident that DRs were properly taken care of,

dispositioned. I certainly hope that your program, so to speak, is not limited to what we label here as our sample DRs.

So when you say to this point you have looked at the ones we have identified, it gives me some trouble. I am pleased to see you are going to go further. Because I think what you need to do is make sure that the DRs and NCRs and all these documents were properly dispositioned.

Today on several occasions you have mentioned you are following the NCR's direction to do the following. I think that word was even used two or three times.

Setting that kind of tone, that you are following the questions on the items as we directed, and that so far you have looked at the ones we have pointed out, bothered me a little bit, if I understand correctly, because we gave you sample problem areas. I said in that meeting we had back in June that I was not going to list all the problems we knew about at the time but that there were certainly enough sample problems for you to understrand the kinds of problems we identified.

The thing we are going to look to you for is for you to be able to convince us -- first, for you to have the confidence but, secondly, for you to be able to convince us that you have done an adequate job following up on these kinds of concerns. It applies to this Question 6. It applies to other questions similarly.

So I think the first thrust is that obviously you have to be confident that you've found problems. I trust that is what you're saying, even though a few times it probably didn't come across that way. And in this one specifically I want to make sure that the guidance or the comments or whatever we gave you were really only an example of what we had. We said, "Here are 10 typical DRs where we have some problems," but it was meant to be only a sample of 10 DRs.

We look at records as a serious matter that show how the plant is handled, how it was taken care of, how it was designed, constructed, et cetera. We look at this as a pretty important item. And what you've got to do is to come up with that program with the right confidence level and talk to us, but I think you've got to do that on all of them.

MR. LEDDICK: There's no doubt about it. I'm not sure C. J. meant it the way he said it, but he did say, "What do you want us to do?" That isn't the correct question at all. You are absolutely right. We have to be satisfied that we have the confidence.

MR. DOBSON: I have a full confession. It brings up the value of getting prepared for a meeting like that. We put together a program plan. The individuals that put that piece of the program plan together unfortunately were working on a copy of your letter, the one before the official copy came. I think we got it a day before, and it hadn't been run back

through the word processor, and that one didn't have DRs in it, and the letter the next day did have the DRs in it. And the people who were putting the program together had the wrong letter. It's as simple as that. We recognized it yesterday. We thought, "Oh, oh." And this is a weakness.

MR. EISENHUT: I don't know what you referred to. I know the meeting we had here in June had DRs. We talked about DRs. But it's really not meant to be limited to DRs.

MR. DOBSON: We understand that.

MR. EISENHUT: And what you have to do is portray to us that all of these items -- we have identified some 23 questions. The first thing you have to say -- I mean, you had some options. One of them was you could come back and say, "These 23 questions are trivial questions. They all go away. There's no problem." If you found that, you could very easily, or a lot easier, argue that was the total scope of the look you did.

If you verified that some of the items where we felt we weren't to the point, where we had reached the bottom line conclusions, starting with Question 1 -- we said, "These may be problems." But once you reach the point that there are some problems there, you obviously have to lay out a program in order to take care of it.

MR. GERRITS: We used examples as a means to give us further definition of the problem. We definitely don't have

in mind only to address those specific examples, not at all. In every case we used those to give us a better understanding and further definition of what we really need to look at from an overall standpoint. We have done that in the other cases I have been involved in.

MR. LEDDICK: Your comments are right to the point. We are not going to submit something until we feel satisfied, and we don't think we can satisfy you if we're not satisfied.

MR. EISENHUT: I appreciate that.

MR. HARRISON: Let me make one other comment. The term "cosmetic" was used, and our concern is that some DRs in this case were written, and the way the action was cleared -- our concern is the record reflects, as Darrell previously said, the construction or the inspection of the items, and we were concerned about how these items were cleared relative to that activity. We just want to be sure that the appropriate action was taken to assure these documents were properly closed out.

MR. LEDDICK: The next presentation will be by Mr. Ken Cook on Item 23.

MR. CRUTCHFIELD: Why don't we take about a 10-minute break.

(Whereupon, a short recess was taken.)

MR. LEDDICK: The next speaker is Mr. Ken Cook on Item 23.

MR. COOK: The description of the concern really had five aspects to it in the June 13 letter. All but one of those dealt with the issue of previous NRC enforcement action associated with Mercury. The last item on the list that I have there is associated with the more general topic of LP&L's corrective action associated with management audits.

The action required was basically, in my view, to determine the cause of a breakdown and, more explicitly, to determine whether it really was a continued breakdown. And I believe we can address that fairly well here.

The corrective action that occurred as a result of that will be covered, as well as our discussion of what we plan to do in the vein of an overall QA program assessment.

LP&L's plan to address this issue really is to do an extensive review of the corrective actions that did result from that enforcement action, and that is in process.

The program also is to review the QA audit program associated with Mercury and its effectiveness and the corrective actions from that.

Also to try to identify lessons learned from this entire issue and factor those into our evaluation of collective significance, which I'll try to give at the end of this a view of how we are planning to approach collective significance.

The response to management audits and the overall QA program -- the QA program at issue is one that we will try

also to pull in the collective significance.

In terms of our progress to date, we still are involved in reviewing corrective actions. We plan to do those and make sure that all of those plans that have been identified as part of the enforcement action will be implemented and are done adequately.

We have essentially completed the reviews of the audit program associated with Mercury. And I'll give you some conclusions on that.

And the management assessment findings have also been completed.

I don't really want to go through the details of the corrective actions that were associated with the initial enforcement action. Those are generally a matter of the documentation that already exists.

A few areas I did want to point out are items where we went beyond what was called for as part of the enforcement action as a result of our view of what was necessary to try to correct this problem. They included organizational changes within Mercury, establishment of the Ebasco QA team to oversee Mercury. We had a quality analysis group that was basically there to try to close out SCDs and make sure those were being done properly.

Over a period of time, from the time of enforcement action through the time that Mercury left the job site, there

was a reduction in work scope to try to cope with some of that work effort.

A number of procedural changes were made in Mercury's procedures, and the records review issue was assumed by Ebasco.

Now, to get a little more attention by our own QA people, the significant destruction deficiency and inspection report following was shifted from the QA organization to Licensing during the same time period.

In order to look at the corrective actions and try to assess whether they were effective or whether there was a continuing problem, it becomes a little difficult to try to do in a short presentation here. But I think there are some key points that need to be made.

One of the major corrective actions was to do a system-by-system walkdown. At the time this was initiated, Mercury had completed somewhere in the order of 90 percent of their work. So these systems were fairly complete.

We started out with four systems, and that was shortly thereafter expanded to a walkdown of all the Mercury systems.

There was a project decision to try to structure that walkdown program. At that point in time the project was trying to get into the startup phase, and there was an attempt to structure that review cycle so that it would match with the sequencing of system turnovers associated with those instrumentations for the systems.

The scope of that walkdown was centered on tubing, tubetrack, supports, and the configuration of those systems.

In doing this, one thing we are attempting to do now is to look at the time frame of NCRs to see if there is a correlation. Some of the initial looks at this seems to indicate that while the number of NCRs may not be directly correlatable to new work versus old work, there seems to be significantly fewer deficiencies in the NCRs that are associated with that remaining 10 percent of the work that we went beyond here (indicating), as compared to some of the work packages from the initial 90 percent and the rework that was being done at that time.

This is not complete, however, and we are hoping that we will be able to get some kind of correlation there.

One of the other areas that we are looking very strongly at is that record review effort. It was expanded considerably in the early part of this effort, but like the system walkdown there was an effort to prioritize that records review, and it was primarily focused on tubing, once again to try to support the sequence of system turnovers.

At the time we talked about a 100 percent rereview or a review by Ebasco. At the time that happened, not all of that document review had been completed by Mercury. When Ebasco took it, rather than undertaking an attempt to finish up that review package, there was a decision to do a 100 percent

rereview of it, but it did include packages that had not been completed by Mercury before they left the job site.

There were a number of reinspections that were necessary as a result of the record deficiencies that were found in that review process. And the exact correlation hasn't been determined, but it is obvious a lot of those, because they were associated with supports and other things other than the tubing, which had been given the top priority in the process -- a lot of those appear to be associated with the turnover packages that had not been finished by Mercury before they left and may well have been caught in that process had it been continued.

The final area there is really the current reinspection that we talked about in Item No. 1. And there we are going to be getting a little more view of how effective that corrective action is as a result of the system walkdowns and reinspections and where we stand in that whole process.

I think the fair assessment is that we believe the appearance of a continued problem throughout the July '82 to '83 time frame is really a result of the sequencing of our walkdown and records review process, rather than an indication of continued breakdown.

The other area I'd like to address is the audits of the Mercury QA program. We did go through and evaluate all the audits. Mercury had done 75 internalized; Ebasco had done 100

audits of Mercury; and LP&L had done 85 percent of their scheduled audits on Mercury, as well as 13 unscheduled surveillances.

We are correlating these now, and there seems to be a pretty good correlation to show that these audits do seem to cover, with some exceptions that we are now evaluating to see how they fit in, the programmatic requirements for the Mercury and Ebasco programs.

One of the key things in terms of the NRC concern and how many audits were performed over a certain time period -- I think part of that can be attributed to the fact that audits are frequently scheduled several times before they are actually performed. What we are looking for now is going back to the programmatic requirements -- an issue is supposed to be audited once a year; was it audited during that time period? -- and not looking so much at how many audits were scheduled, but did you do what was required. And in many cases we are finding we had considerably more audits than the program required.

The other area is the completion of the audit corrective actions. That is another case where the record trail probably caused the NRC as much difficulty as it did us initially. We found that it was necessary to go in and set up those files before we could verify that the corrective actions were set up. We have done that now. Those files are in a

condition that they can be audited. And we are convinced those corrective actions were indeed implemented.

The other area that is outside of the Mercury issue is management audits. There is a little misleading statement in terms of the early '78-to-'80 time frame when MAC was in. Those were really not true audits. They were more of what I'd call a management assessment. They were not an in-depth audit function. It is true that LP&L was very slow to respond to those, and I think that's been addressed previously. But when we came to a true audit situation, we did have in 1982, I believe was the time frame, MAC come in to do an audit of our training program. We have reviewed that record, and we have a very good record, I think, of timely responses to that audit, and the corrective action was implemented effectively. And that did result in a plant staff program and training staff being reorganized.

MR. HARRISON: Before you leave that slide, one of the points we were trying to make was whether you want to call it a MAC effort, an audit, or an assessment really is irrelevant, because one of the problems we saw was a problem was identified and action wasn't taken to resolve that issue.

MR. COOK: Yes, I understand. I think at that time there were certainly several of those that related to the staffing problem. And the actions by LP&L were indeed slow to respond to that. I guess I can't say much more about what we

can do about something that happened four years ago other than the decisions right then were not to take immediate effective action on those issues.

MR. CONSTABLE: Ken, one of the things we are trying to get at here, too, is with regard to the audits we are not so much interested in bean counting of: Were X number of audits done per year? and this sort of thing, but rather: Were the audits of sufficient depth and scope to, in the first place, identify problems, and then the identified problems properly corrected in such a way that the problems don't keep going down the road like they ended up doing.

The point is, though, were there early audit findings that perhaps could have avoided the problems that occurred with Mercury? I believe we think there were findings that were not adequately followed up on. Did I hear you say they were adequately followed up?

MR. COOK: On those audit findings, I think what we are saying is in terms of the corrective actions that were identified, those were followed on and implemented.

Now, we have been discussing in terms of an assessment of that audit program what more we need to do. There has been some discussion of that in terms of the kind of issue you're talking about, and that hasn't really had a decision yet on how much further we need to go into looking at whether there were audit findings that in retrospect you say could have

led you to detect these issues earlier or maybe prevent them in some cases.

MR. CAIN: I think we would acknowledge, referencing the MAC audits, we did not respond as timely as we should have in reviewing our situation and trying to correct that. In many instances those recommendations dealt with personnel additions, adequacy of staffs, and so on, and I don't think you can level that charge against the company now. I think we do have adequate staffs, in my judgment, and if we don't we are trying to get them.

MR. HARRISON: I think the point is that you need in your response to make sure you cover all these issues. I was talking this over with Tom Gerrits when I was at the site last week. And you should also take credit for the level of staffing that you currently have. Our concern is what happened and what are you going to do to prevent this from recurring in the future?

MR. COOK: What I was referring to at that time in terms of looking at assessing those audits, if I understand what Les was asking for, those are with respect to the Mercury audits.

MR. CONSTABLE: Audits of the Mercury organization.

MR. COOK: That's the one area where I think we are still looking at whether we need to do something further in the way of assessment. What we have done to date has been to look

at meeting the contractual and programmatic commitments and number of audits and frequency of those.

The other area that I'd like to quickly run through and keep it short, because we are really just getting into this one, is that we are attempting to try to develop an assessment of the collective significance of all these issues. It is clear that that can't be finalized until we have come to at least an internal conclusion on all of these issues. However, we are trying to get something started that may have to be at least modified but at least try to find out what the structure and content would be.

Our first attempt is to really go through and assess the safety significance, the generic implications, and the cause that we identify on each individual issue. And right now we are looking at trying to categorize all of the 23 issues and subissues that may be contained within that into one of four categories. This is really just a preliminary cut at what those categories would be. We may end up with more or less than that. But this is something we are just trying to go through right now.

We are going to look at other pertinent issues, such as CAT, the recent inspections. The decision on how far to go back on inspection reports we haven't looked at. We want to try to roll all those things into it so we can look at areas and look at, first of all, an assessment of the collective

significance of all the items that fall in training and qualification: What does that mean to the plant configuration and the hardware that is out there right now?

The second thing is to look at what lessons we have learned -- not necessarily the things that would apply to construction efforts, but how can we correlate those into corrective actions which we have already implemented as part of our either construction program or the operational QA program, but how can we identify additional areas that we need to take corrective action on.

So we are trying to look at both of these things and trying to look at these issues not just as Issue 14 or Issue 15, and what is the significance of that issue, but taking all the ones that seem to have some correlation and trying to find out what we can learn from what has happened there.

If there are no questions, I guess that's all I have to say.

MR. CAIN: Maybe we could have a little discussion on the term "collective significance." I would find it helpful personally. We have batted this around in a great deal of depth internal to the company trying to get our arms around it. How do you feel about this very broad outline we are beginning to close in on as far as collective significance? I think "lessons learned" is a key that we will certainly dwell on. I think in approaching lessons learned, you need to categorize

where some of these 23 areas fall out so you can begin to develop policies and procedures through lessons learned, prevent them from happening again, and what is the significance of that on the management of the project.

MR. CRUTCHFIELD: I think the approach you have laid out there -- Jay and I were just talking about it -- is a good approach. I think we feel comfortable that doing that you will better understand what went on at your plant during construction; you will better understand the weaknesses of that process; you will be able to address them so that you won't have those problems in the future. I feel comfortable with that.

MR. HARRISON: Part of this is going to be some type of looking at root cause determination?

MR. CAIN: I think it's going to be woven through the whole report in that each of the items -- you're asking what is the collective significance of each one of them. And then we are going to try to give you an overall summary, a general management statement as to where we are and where we're going.

MR. CRUTCHFIELD: I think that's the right approach. I think it will give you a good feel for where you stand, where your problems were and the necessary fixes you have tried to implement to take care of them.

MR. COOK: I think the key to our approach right now is to say it is difficult to look at 23 issues and say what

is the significance of all those together, but if you can categorize them in some manner like this, it gives you an opportunity to look maybe at areas that are a little more narrow and be able to identify what the lessons learned from those things are.

MR. CRUTCHFIELD: I think regardless of how you cross-cut them, whether it's those four areas or six areas that are different or whatever, you are going to come to the same conclusions relative to where the problems were.

MR. PERANICH: You said those were the initial four areas, not necessarily the four areas?

MR. CAIN: That's what we are beginning to look at. And as Ken indicated, those are the four categories we are evaluating as to the ones we want to use, and we may expand them.

MR. LEDDICK: We are trying to look at this in the context of an operating organization.

MR. PERANICH: I had one thought. You have just discussed that, and I recognize you have brought interpretations to those areas. But that is a consideration of staffing.

MR. CAIN: Yes.

Any other questions?

If not, I'd like to recall Mr. Dobson to the stand.

MR. CRUTCHFIELD: Dale, before you start, I'd like to suggest that as far as the staff is concerned, these are perhaps the real bread-and-butter issues that you have

addressed so far. They are the real key issues as far as we are concerned. They are indicative of the key problems and key questions that we had asked.

Subsequently, if you could speed the process a little bit, it might help us all, because I know a number of people have planes to catch, including yourselves.

MR. CAIN: I agree. Mr. Dobson has assured me he was going to cover four or five there in about five minutes.

MR. DOBSON: Mathematically I have determined we're going to be done at 6:30.

MR. CRUTCHFIELD: Good. You may not have a very large audience.

(Laughter.)

MR. DOBSON: I'm going to go through these very quickly, but that is not to detract from the importance of the issues themselves. We have a high confidence that we have our arms around what your concerns are, what our concerns are, and what the proper solutions are.

I'm going to cover No. 5, which is conditional releases; No. 7, backfill; No. 8, shop welds; No. 11, cadwelding; and No. 12, main steam restraints.

The NRC was concerned about the deficiencies with regard to our tracking of conditional certifications on CE equipment. Their concern was certainly valid, and we had to go straighten that out.

We did find that we did not do a proper job of tracking conditional certifications in the case of Combustion Engineering. However, on review we found no adverse consequences, and that will be totally resolved by the middle of next month. We have only two remaining subtier vendor manuals. But there is no adverse consequences with relation to the hardware. And that will be behind us within the next month.

Stretching it to the generic portion of the concern, where else might this have happened? The cause of it -- and it's not an excuse, but it was the perception on the part of some people that the conditions on the combustion equipment were related to commercial concerns. And that turns out not to be true. That was a false perception.

The other part of that problem is it is one of these manufacture, deliver, and erect contracts. It doesn't go through the warehouse, doesn't go through the normal process, as do other materials that arrive on site. So it had that peculiarity.

So we went back and addressed the VQAR concerns, whether or not we had tracked those, the vendor quality assurance; Ebasco's New York office NCRs, whether or not those were transferred to the project, and we did track those; and a heavy sample of the manufacture, deliver, and erect contracts to see whether or not we had any problems similar to combustion. We found that we did not.

We further looked at our receipt inspection process to see whether or not that was adequate. And we took a look at the spare parts orders from Combustion Engineering on 148 purchase orders.

We found we had one that was released on a conditional certification. However, it was tracked and it was installed in the plant under a conditional release, and it was tagged.

Are there any questions about conditional certification?

(No response.)

No. 7 is backfill.

During your inspection efforts, you addressed the backfill soil density packages. We did not locate for you records on in-place density tests in one area of the backfill. These are important in order to assure the correct seismic response of the backfill.

We did err in that we just didn't direct you to the right place where the records were. The records were still formally in GEO testing, in their possession. There's nothing wrong with that. They are still active on site. However, they have a more complete set of records. Ours are for the most part copies.

We did find those for that one area. We do have a complete set of soil density tests. We have a complete set of lab tests. We are missing some inspection records which we

have analyzed our way through, and we have concluded that the backfill did meet the specifications and that the missing inspection records do not constitute an unforgiveable problem.

MR. CRUTCHFIELD: The records are now on site and available for the staff to come down and examine?

MR. DOBSON: Yes, sir, they are. And we have gone to a lot of trouble on this one. There were six previous instances in which a statistical analysis was made of the backfill, over time. The last one, I think, was made in 1978 or '79 time frame. But most of the backfill was in place at that point. The balance of the backfill since then has been minuscule by comparison. Those are available.

We have an overlay plot of all the density tests, however many overlays it takes to get from minus whatever to the top. You can overlay those and see the spread of the density tests and all those packages are available. We have since moved the records into the Ebasco vault.

MR. SHAU: So the records are available now.

MR. DOBSON: Yes.

MR. SHAU: We had trouble finding it.

MR. DOBSON: That was our error, that we didn't take you to the right location.

Shop welds, No. 8.

It has to do with lack of proof of visual examination of shop welds, and we were requested to provide the documentation

that the shop welds were indeed hydro-tested, or provide a statement from the responsible personnel. We have witnessed the test to the effect that the shop welds were indeed inspected during hydro.

We have done both things. We have gone back, and we have reviewed the documentation that does exist. And we can make the statement that all shop welds were indeed hydroed. We also got a statement about a month ago from the ANI that indicates that all the shop welds were hydroed. So we went at it from both directions, and we think we can put that to rest.

This is one of those cases that has a long history. We thought the problem had been solved about a year ago, but we addressed it again in this context. But the letter from the ANI is a different version from the one that was available when you were there.

MR. SHAU: Those ANI are the ones that tests were made many years ago. These are the same ANI?

MR. DOBSON: It's the same ANI, the one in Atlanta; isn't that right?

A CONFEREE: Correct.

MR. DOBSON: But it's a new statement from them.

A CONFEREE: The statement from ANI is from the Atlanta supervisor who did personally witness several of the tests that were performed. It was not the only ANI used.

MR. HARRISON: He was the ANI supervisor?

THE CONFEREE: He was the supervisor on all ANIs -- he was on site several times and personally witnessed a lot of the tests.

MR. CRUTCHFIELD: That's the letter you attached to your August 10 package?

MR. DOBSON: Yes.

Issue 11, Cadwelding.

Cadweld data, of course, is stored in the placement package, and they are hard to analyze on that basis. They are scattered. The NRC requested that we provide it in such a form that it can be assessed to see whether or not we did meet the technical specifications and requirements, and also that we break it down by building or structural, type program, bar size, bar position, cadwelder, and those kinds of things.

In order to do that, we had to go back through all this and pull out the data and put it in a computer program so we can run it back and forth and analyze it ourselves.

The data in each category will include those aspects (indicating), and supplement that NCR to address any new findings.

The effort to date indicates we are confident that we did meet the requirements. In some cases it was an overkill. We have a good spread, a good test pattern, and we think we met the PASR commitment in the number of tests. We show down

here the data is now in the computer where we can manage it now, and we haven't quite finished our analysis. But that will be done very shortly.

Issue 12.

This is one of our unhappy stories. It has to do with SCD 78, which was a previous reinspection of the steel put in place by American Bridge, in which we went back and rechecked a lot of bolted connections. Because of the status of construction at the time that was done, the work above the steam generators was not included in that, and we failed to pick that back up.

So we reopened the SCD. We issued an NCR to identify that. We reviewed the scope of American Bridge to make sure we had the right scope, so that that plus the previous reinspection did account for the total amount, and then went out and started a reinspection program.

Now, the number of bolts replaced looks very high. The reason for that is, given the status we were at at that point, we said, "If there's a question, just replace the bolt. Let's don't spend time taking bolts out and send them off to a test lab and that sort of thing. Let's get the job done and get on with it."

The scoping completed involves that many bolts (indicating). Seven hundred have been replaced to date. The majority of those have to do with the inability to confirm the

bolting material -- readily confirm the bolting material. And we have approximately 150 bolts remaining to be replaced.

Also, we recently determined that we believe we have some more inspection to do on some welds. At one point in the installation of that steel, we had to cut out some shop welds and replace them with field welds, and we are not sure we have the right documentation on the field welds and we are going to go back and look at that.

MR. CRUTCHFIELD: It's an encouraging sign. In spite of the fact that you found problems, it's an encouraging sign that your process is working in identifying problems.

MR. CAIN: And we also acknowledge that we do say so and correct them.

MR. DOBSON: I really believe, Mr. Crutchfield, that you are going to find that as our answers come in they really are going to be a complete set of answers. We have, I believe, addressed the generics perhaps more than would have been normally required.

MR. CRUTCHFIELD: Good.

MR. DOBSON: I will be followed by Ray Burski, who is going to cover nine issues.

MR. LEDDICK: He's got half an hour to do it, three minutes an issue.

MR. DOBSON: I didn't leave any questions?

MR. CRUTCHFIELD: There's no questions we can answer

for you?

MR. DOBSON: No.

MR. BURSKI: I have all the remaining issues except No. 14. Three of those issues have already been submitted and I'll address those last.

No. 9, documentation for instrument cabinets.

The description of concern in the NRC letter was that some documentation on welds appear to be missing, and some of the involved welders may not be certified to all positions used. Our review indicated an attempt should be made to locate the missing documents and determine if the welders were appropriately certified.

Specifically, we issued an NCR to identify and resolve the de encies, to determine if the welders were appropriately certified, and locate the missing documents or take appropriate action.

Generically we were going to determine if there was any other J. A. Jones weld-related work for which we didn't have documentation.

Our progress to date on this issue is: Looking at the documentation of the 18 instrument cabinets that J. A. Jones welded, seven of them didn't have all of the documentation, four of the seven had partial documentation, three had no documentation at all.

These seven cabinets have been reinspected and the

welds have been found to be acceptable.

Review of the J. A. Jones welding inspection reports confirm that the welders were certified to positions that they used. The inspector noted on the form that he checked the welder qualifications prior to the welder work.

Since we found that seven had no documentation generically, we went ahead and identified all the welding J. A. Jones potentially could have done. We have narrowed that down to five J. A. Jones weld-work-related items which we haven't totally found the documentation. Those five are still in the evaluation stage, and if we find we don't have the proper documentation we are going to reinspect those five areas of work.

The next is Issue 15, welding of D level material in containment. "D level" refers to the CB&I nomenclature given to material that was nonpressure binding material.

The description was that we lack traceability on supports, weld rod, and welder identification and certification.

Our review determined that we should attempt to locate and verify the adequacy of the information or perform a material analysis or rework the welds as required.

MR. SHAU: I'm a little confused. In one of your responses you mentioned T&B.

MR. BURSKI: Not T&B; CB&I.

MR. SHAU: When you responded you mentioned T&B.

MR. BURSKI: I'll get to that on my next slide.

We started on a review of the specific supports identified in the letter, and I'll go down to the "Progress," and it determines the specific supports on the Class D welding on the spray ring were in fact welded by T&B with the exception of two, and those two were welded by CB&I. They have gone back and looked at all the documentation associated with the T&B welding and determined that the documentation is in place. But for the two that CB&I did, we have analyzed the condition and have assumed that those supports no longer exist, distributed the loads to the surrounding supports, and that analysis is in progress. And we feel comfortable that we will be able to show that, without those two supports, the supports will adequately support the ring.

Having had that problem pretty much identified and out of the way -- I do want to point out there were some spring clips or spray clips that were welded in place by CB&I but were never used.

MR. SHAU: What are the major loadings?

MR. BURSKI: John, do we know what the major loadings are on the ring?

(Inaudible.)

MR. BURSKI: The question is: Are the major loadings the dead weight or the SSE?

A CONFEREE: I believe they will be dead weight. We can check that out. It depends on the response factors.

MR. SHAU: (Inaudible.)

MR. BURSKI: We were redoing the analysis assuming the two supports CB&I did don't exist.

MR. SHAU: (Inaudible.)

MR. BURSKI: It's probably a combination of SSE and dead weight load. You take the worst-case condition. It will be the design loads for that system.

MR. SHAU: Can we see the calculations?

MR. BURSKI: I don't have them with me. We will provide it in the response.

MR. CRUTCHFIELD: You still have that calculation underway?

MR. BURSKI: That's not complete.

A CONFEREE: Whether it's thermal, deadweight, or SSE.

MR. BURSKI: That calculation will be provided.

MR. CRUTCHFIELD: I think we will need to look at that to make very clear what the loads are you are redistributing to the remaining supports.

MR. BURSKI: Well, when you take a support out, you redistribute it.

MR. CRUTCHFIELD: But be very clear whether it's thermal or SSE or local loads or whatever the case may be.

MR. BURSKI: Okay.

The next thing we did was to scope the additional D material welds that CB&I did. We said, "Where are the welds

outside of the spray header?" That scoping is complete.

We did a document search on CB&I and found that generally there was not documentation for the D material welds.

There were a lot of D material welds that were stairs and handrails and things. Those were eliminated, and we are doing a 10 percent sample of the Category 1 D welds that CB&I did, which is approximately 405 welds.

MR. SHAU: Would D material be in Class 2 or Class 3 or any particular class?

MR. BURSKI: You mean for CB&I's program? Anything greater than 4 inches away from the pressure boundary --

MR. SHAU: (Inaudible.)

A CONFEREE: It's not the ASME material.

(Inaudible.)

A CONFEREE: Ray, I think I can answer the question. The D material in CB&I's definition is the material that lies outside of the ASME code jurisdictional boundary but which was nevertheless within their scope to supply and erect under their contract with LP&L. That code boundary, as you know, runs out 4 inches away from the pressure boundary.

MR. SHAU: (Inaudible.)

A CONFEREE: I think Waterford may have prestated --

MR. SHAU: I'd like to have you compare them to the present code of ASME.

THE CONFEREE: It depends what it's used for. The

largest part of D material in terms of quantity is the polar-train ring guarder. I'm not sure that would be enough. I don't think we have really addressed it for Waterford.

MR. BURSKI: Going back, on the Class D material, trying to trace the materials in the weld rod, we have found that there is no unique traceability on the material in weld rod, except we know that all material on the purchase order was receipt-inspected and had the proper certifications, both for the material and the weld rod. We also went back and looked at CB&I's welders and found they were all qualified to Section 9.

Next is No. 17 which is the Mercury installation for anchors.

On review of Mercury procedure SP-666, it didn't appear to have the QC verification of many characteristics that the installer was required to adhere to.

Our review determined we should revise the Mercury procedure SP-666 and initiate a reinspection program of sufficient size and scope to indicate whether these anchors are able to perform their intended function.

Our plant was, since this procedure is no longer used on site, to review the procedure to determine the adequacy of the procedure, review any Mercury documentation and field verifications during the transfer review that was performed, perform a sample reinspection to ensure adequacy, and to analyze

the critical anchor to embedded plate installations.

Our progress is that we have completed the procedure for review for adequacy. The procedure references a lot of specific details that would infer that the inspector did inspect the proper attributes. It is not the best paper trail. It is available but it's a hard and treacherous paper trail.

We then went back to look at the installation records from the transfer review to see what other inspections may have been done. There were 896 inspection requests. These inspections included torque verification, embedment, and a sketch of the anchor plate to have the reviewer's response against the detailed drawings.

Even with that we couldn't adequately verify that some of the attributes were properly inspected, so as a result of the decision to reinspect Mercury on some other issues we are reinspecting these three attributes on the Mercury inspection. That's spacing between adjacent anchors, spacing between an anchor and the edge of a concrete surface, and minimum anchor embedment depth.

The analysis of the critical anchor to embedded plate installations is complete. The worst-case analysis shows what we have is acceptable.

I would like to point out, Denny, that this reinspection isn't in our July 27 letter.

No. 18 is the documentation of walkdowns of nonsafety

related equipment.

The NRC description of the concern is that the follow-up documentation of the final walkdowns did not list equipment in detail. Therefore, they couldn't conclude that the instrument air piping, tubing, and supports had been adequately addressed regarding potential damage to safety equipment.

We were asked to provide documentation that clearly shows what equipment was reviewed during the walkdowns and on what basis it was concluded that the installation was acceptable.

Our plan was to describe the design actions taken to prevent nonseismic failures from adversely affecting safety-related components, provide the documentation on walkdowns including our bases for acceptance, and reinspect the nonseismic portions of the instrument air system.

Our progress to date is we do have the documentation on walkdowns and a description of the design basis and actions that we will include in the response. We will also include the drawings that show what equipment was looked at during these walkdowns.

MR. CRUTCHFIELD: But you've expanded it beyond the instrument air system?

MR. BURSKI: Yes. Well, in the documentation review, yes, we did expand it.

MR. CRUTCHFIELD: And you felt comfortable that the documentation review of those walkdowns of other nonsafety

systems was adequate to verify that it had indeed been done.

MR. BURSKI: From the fact that we can relate the equipment that was looked at to the inspection that was done. It wasn't done on a system-by-system basis. It was done on an area basis. It went into an area. They looked at the safety-related equipment and reviewed the surrounding systems and structures to see what could impact if it would fall during a seismic event. And we can relate the documentation of those walkdowns to the specific safety-related equipment.

MR. HARRISON: So by doing the areas, you covered whatever was in that area.

MR. BURSKI: Right. But to assure ourselves that the walkdowns were adequately done, we are going to walk down the instrument air system using a multidiscipline engineering walkdown, and that walkdown will be in the RCB, the RAB -- the nonseismic portions.

MR. PERANICH: That's also changed from the July 27 letter?

MR. BURSKI: Yes, that's different from what we indicated in our July 27 letter.

Item 21 is the LP&L QA construction system status and transfer reviews.

During the NRC review, it was determined that findings generated by LP&L construction QA on 15 systems may not have been adequately dispositioned. The open findings not identified

to LP&L operations may have affected the testing of these systems.

The review indicated that we should complete the review of all significant LP&L status and transfer review findings to ensure closure or proper tracking, and to determine whether any open findings that were not identified could have adversely affected the testing work that was conducted on these systems.

Our plan was for LP&L and Ebasco to perform a review to identify the correspondence associated with the 15 systems listed in the letter as having questionable dispositions; to have Ebasco perform a review to determine if all LP&L comments had been responded to and accepted by LP&L.

LP&L will perform a review to determine whether any generic implications or significant trends would have developed on the comments that were generated and not been resolved.

And LP&L will perform a review to determine whether or not there was any impact on system testing or operation by the comments not being responded to by Ebasco.

Our progress to date is we have completed the review on the 15 systems identified in the letter, and all comments have been resolved.

Reviews have been completed by LP&L on Ebaso on comments generated during the status and transfer reviews, and all LP&L comments have been resolved.

LP&L has done their review for generic implications or significant trends, and none were identified.

We had LP&L Startup perform a review of the comments issued on these systems. This review determined that none were significant or would have impacted system testing or operation.

MR. PERANICH: I have a question. When you say "LP&L comments have been resolved," are you referring to resolved as a result of your review of the situation or resolved as a result of the initial action taken and prior to the transfer of systems to Operations?

MR. BURSKI: Are you talking about all the safety-related ones I did or just on the 15?

MR. PERANICH: Right now I'm talking about the 15.

MR. BASS: Would you state the question again, please?

MR. PERANICH: My comment is you say, "LP&L comments have been resolved." My question is: Have they been resolved subsequent to the initial transfer and acceptance by Operations QA?

MR. BASS: No, not all of them.

MR. PERANICH: But there were some that weren't?

MR. BASS: Right.

MR. PERANICH: The next question I have is: How do I know there aren't more like that?

MR. BASS: Because all the comments have been determined to be resolved.

MR. PERANICH: That was my third question, if that's how I should interpret that, that you looked at all systems.

MR. BASS: Yes.

MR. BURSKI: That's right.

MR. PERANICH: Then I have a comment. I don't believe the May 14 date is appropriate.

MR. BASS: We'll check that.

MR. BURSKI: No. 22. We think there are really two issues: welder qualification for Mercury, and filler material control at the site.

Let's talk about the welder qualification first.

In the letter we determined that the concern was Mercury welders were not qualified to the correct welding procedure. They may have been qualified for a specific process, even though they were not tested for that process. There were dates on Mercury qualification records that appeared questionable, and one welder may have welded prior to being tested.

Our action was to attempt to locate the missing documentation and determine if the welders were properly qualified. And if we couldn't find the document, LP&L shall propose a program to assure the quality of welds performed by questionably qualified welders.

We also reviewed the specific Mercury welder

qualifications given to us by the NRC staff and take corrective action as required.

Our progress to date is we started out by reviewing the specific Mercury welders that were pointed out and determined that their qualifications were in order. However, there were three documentation discrepancies that were identified. As a result of that, an NCR was issued to address these documentations and to perform a 100 percent review of Mercury welder qualifications for similar problems, and we found no similar-type problems in that 100 percent review. Corrective action and the NCR is complete.

There was also an NCR written back in November 1983 that addressed Mercury qualification concerns. We went back and did a rereview on this NCR, and our review showed that the Mercury welders performing safety and seismic weldments were properly qualified, and no additional corrective action was required.

Under "Filler Material Control," it appears that the rebaking of low hydrogen electrodes did not meet ASME and AWS code requirements.

We should provide engineering justification for allowance of rebake temperatures and holding times that differ from requirements of the ASME and AWS codes.

Our plan was to clarify the welding material storage requirements, and to assure that technical deviation from the

code was properly evaluated and implemented.

Our reason for clarifying the welding material storage requirments is that rebaking was not a process that was performed on Waterford III, and we went back and reviewed all the site procedures to make sure that none of the other contractors used the term "rebake." In our review we found that rebaking was for electrodes that did not come in hermetically sealed cans. All electrodes received on site were in hermetically sealed cans, and the ovens that were on site were used as holding ovens and not rebake ovens. We understand there was an oven that was titled "rebake." We determined that was mislabeled. It was a mislabeled oven. Actually it was a holding oven.

However, we did go back and review the ASME requirements for holding and found that the procedures were in compliance with the ASME requirements. We went back to the AWS and looked at two requirements, one in D1.1 and one A5.1. And there are internal discrepancies between the AWS. We meet the requirements of AWS A5.1. We don't meet the requirements of AWS D1.1. But we have evaluated it and found that these internal inconsistencies in the code pose no detrimental effects to the weld rod. This may be an area where we need to get your code people with our people to discuss the terms that we are using versus the terms that were in the letter and code interpretation.

MR. HARRISON: The concern came up because we found an NCR where power had been lost to the holding ovens for, let's say, a weekend. The concern is if these rods went down to an ambient temperature, did they possibly absorb moisture that could have been detrimental to the welding process. There were several NCRs that reflected this condition. That's how the thing originally came up.

So the way that I understand the code, if that did occur you would have to rebake prior to being allowed to use that electrode.

MR. BURSKI: We'd have to go back and double-check, but I think in those cases we would have probably disposed of that rod. Upshur, is that right?

MR. UPSHUR: I'm not familiar with the NCR that you are speaking of. I am familiar with a lot of DNs on the temperatures on the ovens. The thermometers when they were recalibrated would fall out of calibration. We'd evaluate that and throw away the rod.

There is an NCR where the oven was off for a whole week, and I'm sure the disposition would have had to have been we would have destroyed the rods.

MR. HARRISON: If I remember correctly, I think it was a T&B DN, I guess it would have been. It's not just the normal process. It's the process of where you needed to actually rebake. If the rod was thrown away, I don't have a

problem, but we'll have to look at that when we come to the site.

A CONFEREE: Under the code, "rebake" really isn't a term in existence right now. It's considered drying. The ovens at Waterford were never intended for drying purposes. They don't have a temperature range, for one thing.

MR. HARRISON: The concern was after we saw the NCR we went out to the weld rod issue area, and one oven was tagged "rebake oven" and the individual was issuing rod out of that oven and we didn't understand what was being done, and I don't think he did either. That's why the question came up.

MR. BURSKI: Moving right along, this is an item that we have already submitted. It's Issue 2, N1 instrument line documentation.

The concern was that the lack of quality records for locally mounted safety-related instruments installed to ANSI B31.1 calls into question the acceptability of these installed components.

Our action was to provide the missing documentation required by Appendix B for those who are installing the B31.1, review other design changes and documentation for N1 instrumentation to assure all system installations were properly documented and accepted. And if we couldn't find that documentation, we will take action to assure the systems comply with the requirements.

Our plan was to complete the ongoing review of the quality records of all safety-related N1 instrumentation installations.

Secondly, it was determine the status of documentation for all instruments installed prior to April 7, 1982.

Our progress is that of the 192 instruments installed prior to that date, only 12 instrument installations were of concern.

We did an exhaustive record search. There was partial documentation on some, and some documentation that was in accordance with B31.1 but not entirely with the ASME III.

We have decided to rework those portions of the N1 instrumentation installation under B31.1. We have completed review of the quality records of the other N1 and all were found acceptable.

Item 3 is the instrumentation expansion loop separation.

During the review there was a separation criteria violation noted.

The action was to correct that one and to provide a program for review of the other systems.

This one has also been provided to the staff. We did evaluate the separation criteria in System 52A. The specific expansion loop was reworked and removed.

We performed a QC verification of all instrument

lines where redundant tubing was run in proximity to each other to assure compliance with the separation criteria.

Basically, as I said, the one item has been evaluated and corrective action completed. Our walkdowns are complete. Our preliminary evaluation of the results of the walkdowns has concluded that there was one section of tubing that we will enclose -- I believe it has already been done -- in the tube track prior to fuel load.

There were other deviations. None of these were determined to affect safety.

Are there any questions?

MR. HARRISON: No.

MR. BURSKI: The last one I have is No. 19, which is water in the basemat instrumentation conduit.

The concern was that there was water noted in one conduit, and if the seals should fail there would be a potential direct path for groundwater to flood the auxiliary building.

We were asked to look at assuring that the potential direct access paths of water are properly sealed to prevent flooding.

Our plan was to identify each conduit stub-up which shows evidence of past or present leaking. Leaks were reviewed by Engineering to determine whether there was a safety hazard.

We did walkdown all conduits to the minus-35 level of the auxiliary building. Our evaluation is complete

and the findings are that the permanent conduits are entirely within the building and they present no direct leakage path for groundwater and are not a safety hazard. The conduits that were initially entering the basemat from outside were temporary construction conduits. Those have been grouted and their blockout pits have been filled with concrete, and they no longer serve as a path for groundwater.

The piezometer riser which goes through the basemat will be sealed, and a standpipe for two other piezometers will be pressure-grouted.

We have committed to replace the existing seal material with a different type if sometime the seepage would become a problem to maintenance.

Questions?

MR. CRUTCHFIELD: No.

MR. DOBSON: One more.

MR. CRUTCHFIELD: Okay.

MR. SAVONA: Item 14 is the J. A. Jones speedletters.

The concern was that during the Ebasco QA review of the Jones speedletters and EIRs, information requests, several items which could affect plant safety were noted. Based on its sample, the staff does not expect that any of these items will significantly affect plant safety.

However, you had asked us to complete the actions identified in these reviews, and issues raised shall be resolved

promptly.

Our approach was to complete the review of the J. A. Jones speedletters, approximately 1100, and in addition to that do an additional 10 percent review of any other safety-related contractors who have had information requests, speedletters, et cetera, similar to.

The J. A. Jones review is complete. Out of the 1100 items, they were all reviewed by Ebasco Civil Engineering. Approximately 270 had potential design connotations. A little over 100 of those actually had SERs and DCNs written. The remainder were reviewed and engineering analysis performed, and there is no modification required.

On the balance of the contractors, there was a 10 percent sample derived of the remainder of any of the items, information requests, speedletters, et cetera, on those contractors. However, contractors who had 50 or less documents received a total review, period. Based on the type or number of findings, the review of three contractors' documents was expanded. No findings to date have resulted in modifications based on this.

Presently two contractors are still being evaluated, of which one contractor will require additional physical inspections.

MR. HARRISON: Who are the two additional contractors?

MR. SAVONA: American Bridge and F&M.

A CONFEREE: On American Bridge, in going through some of the IRs there were some welds uncovered that had not been inspected before.

(Inaudible.)

MR. SAVONA: On our action to prevent recurrence, a retraining of individuals involved with information requests with emphasis on appropriate documentation of design changes has been accomplished and is continuing.

MR. HARRISON: Since you haven't seen the SSER, let me also pass on to you that during my team's review we did review the request for information or information requests for T&B and Nisco, and we found no problems with those two contractors. In fact, we did quite a large sample.

MR. SAVONA: Thank you.

MR. CAIN: That concludes our presentation. We would like to thank you all for the attention you have given our speakers and the opportunity to dialogue with you and interface with you concerning the 23 issues.

I feel that it has been a very productive experience and it has certainly given us some insights that we will take home with us and utilize in the development of a more definitive plan to enable the NRC to evaluate more closely what we are doing. We will certainly approach the question of independence and how that is defined and how it is being viewed at Waterford III. We will certainly incorporate all of the individual

comments as they relate to the particular issue in our final response.

We look forward to your continued involvement at the plant site and we welcome you there. As I keep telling people, Waterford III is a pretty plant, and it's getting prettier, and we think it's getting closer to the point where we are going to get some beautiful killowat hours out of it.

Thank you very much.

MR. CRUTCHFIELD: Speaking for the staff, I think generally we are very encouraged by what we have heard today. The elaborations that you provided us on each of the issues are very useful to us and very informative, and I think it will expedite the process.

Some information we have passed on to you today relative to Mr. Levine's team documenting his advice that he is presenting to you, some subjective criteria for qualifications of individuals and things like that I think are very useful and will help both of us get this process moving forward.

We do need to keep in regular contact. I think you can expect to see our teams or team members down there on a regular basis over the upcoming weeks and hopefully not too many months.

I would urge you, though, when you find yourselves in a position where you need to make a modification to your July 27 letter, let us know that as soon as you can so we can factor

that into our work.

This is in the way of administrative material. Copies of the slides will be available to those who need them. The staff will have a copy. We will place a copy in the transcript also. The lady who is making a transcript of the meeting will get a copy to us, and we will place it in the public document room as soon as we can.

Again, we thank you for bringing up the team of people that you have.

I have one last item to take care of.

MR. LEDDICK: I can't recall whether it was brought to your attention or not but it's in that handout, a schedule of when we expect to submit answers.

MR. CRUTCHFIELD: Good. We will take a look at those.

One last item I would like to take care of is to offer the opportunity for any member of the public who may wish to make a statement.

MS. BURNOVIC: I'm Lynn Burnovic from the Government Accountability Project, and as most of you know we have been somewhat involved in this project. We have called for an independent reviewer in contrast to the current situation that exists. I believe that many of the items that were brought up today really emphasize the need for an established independent reviewer in contrast to the system that the staff up to this point has supported.

I think that although there has been more information submitted today than at any time prior, neither the utility nor apparently the NUS corporation really appreciates the concern with regard to independence. And I'd like to go over just a few points Mr. Eisenhut and some other members of the team brought up. Basically our evaluation would be that they haven't been adequately addressed, which is what we have been saying in the past.

Mr. Eisenhut talked about the need for a detailed program plan. I have not heard any commitment from the utility to provide that. In fact, I heard Mr. Levine say he didn't think it was necessary.

Mr. Eisenhut and other staff members said that the reviewer needs to be truly independent, that is, it should not be involved in development of the program that it will later review. And I heard absolutely no commitment to that concept. In fact, I heard Mr. Levine say the opposite, that he thought NUS should be involved in development of the program.

The most important thing I heard Mr. Eisenhut say and other staff members was that the utility and not its consultants, not NUS, and certainly not the NRC staff, had to demonstrate the managerial capacity to identify the problems and develop a solution.

You have heard some talk about the utility proceeding at its own risk, and a lot of questions about what the NRC

wants the utility to do. I think those of us who have been involved in other projects, such as the Midland project, heard exactly the same questions asked by the utility when they are essentially asking NRC staff to act as a consultant to them. I think that it really is a matter of the utility itself developing the kind of program in identifying the problem and appreciating the seriousness of the problem. And it can't be the staff that does that identification, that develops the program, and then essentially acts as a consultant remedying the problem.

I think given the fact that this has been sort of an ongoing problem, I would say since December of 1982 when the civil penalty was assessed, it is really time for the NRC staff to demand the kind of independent program that was put into effect at other troubled plants with very similar quality assurance breakdowns.

We will submit a detailed analysis of the current submission of LP&L, but I'd like to address by way of illustration one of the items brought up here today which may be potentially the most important one. And that is the qualification certification of the QC inspectors.

I would urge the NRC staff, which does have experience in other plants with very similar problems, not to lower the standards for what it requires to remedy the problem. At Midland, at Zimmer, and generally throughout Region III when

similar qualification problems were discovered, what was required was documented proof with quality assurance documents that 100 percent of the QC inspectors were qualified. When the utility could not come up with that, what was required was a 100 percent reinspection of their work.

What is being proposed here by LP&L -- and I must say this is the third submission, and with today it's probably the fourth presentation to the NRC -- is, first of all, 100 percent review of the qualification of QC inspectors. However, if the quality assurance documentation required by Appendix B is not provided, they are going to go to extraordinary lengths to try to come up with some indication that people are qualified, including employment at a security agency. I don't think that's equivalent to what has been required at other plants when similar problems have occurred.

Secondly, there has been absolutely no indication that 100 percent reinspection is being considered. And there is no excuse in this instance for less than 100 percent reinspection. What has been proposed, I assume by way of illustration, was 10 percent reinspection. I think that is obviously inadequate when in the past 100 percent reinspection of the work of Mercury, J. A. Jones, and American Bridge has shown that up to 30 percent of the work had some nonconforming conditions or problems.

There has also been a suggestion made that higher

reinspections could substitute for 100 percent reinspections. I think that is really disingenuous when in fact those prior reinspections have themselves been the subject of Office of Investigations investigations and claims that there were falsified records.

In short, to conclude, I would say that the staff's experimental approach in this case to encourage the utility to develop and implement an independent plan and not to impose an independent review plan doesn't seem to be working up to this point. And I would urge them to reconsider requiring an independent review, an independent reviewer, an independent review plan, that meets the established Paladina criteria and allows public comment and input into that plan.

MR. CRUTCHFIELD: Thank you.

Anyone else?

(No response.)

Gentlemen, thank you very much.

(Whereupon, at 4:25 p.m., the meeting was adjourned.)

** ** **

CERTIFICATE OF OFFICIAL REPORTER

This is to certify that the attached proceedings before the UNITED STATES NUCLEAR REGULATORY COMMISSION in the matter of:

NAME OF PROCEEDING: MEETING BETWEEN THE NRC STAFF AND REPRESENTATIVES OF LOUISIANA POWER & LIGHT TO DISCUSS THE APPLICANT'S RESPONSE TO THE JUNE 13, 1984 STAFF LETTERS

DOCKET NO.:

PLACE: BETHESDA, MARYLAND

DATE: FRIDAY, AUGUST 17, 1984

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

(Sigt) Claire Tepper/by SG
(TYPED) CLAIRE TEPPER

Official Reporter

Reporter's Affiliation

ACE-FEDERAL REPORTERS, INC.

SCOPE OF REVIEWS/REINSPECTIONS

- SCOPE OF REVIEWS DESIGNED TO FULLY ADDRESS NRC CONCERNS
- SOME UTILIZE SAMPLING PROCESS WHEN JUSTIFIABLE
- ALL NECESSARY REINSPECTIONS MANAGED BY LP&L/ BY FORMAL PROCEDURE/WITH QUALIFIED PERSONNEL/ DOCUMENTED

PARTICIPANTS/ROLES

- PROJECT PERSONNEL
  - LINE MANAGEMENT
  - PRINCIPAL MANAGERS
- SRC SUBCOMMITTEE
  - MEMBERSHIP
  - ROLE
  - REPORTING
- TASK FORCE

DETAILED PROCESS

- UNDERSTAND REAL CONCERN
- ADDRESS METHODOLOGY
- ROOT CAUSE
- GENERIC IMPLICATIONS
- RESOLUTION OF CONCERN AND GENERICS
- SAFETY SIGNIFICANCE IN TERMS OF FUEL LOAD AND POWER ASCENSION

DETAILED PROCESS (CONTINUED)

- LP&L DATA VALIDATION PROCESS
  - VALIDATE STATEMENTS OF FACT
  - AUDIT AS APPROPRIATE
  - ASSEMBLE BACKUP
- DE. ILED JOINT REVIEW OF WRITTEN RESPONSES FOR CLARITY, LOGIC AND COMPLETENESS
  - PROJECT PRINCIPALS
  - SRC `UBCOMMITTEE
  - TASK FORCE
- TASK FORCE INDEPENDENT VALIDATION

2	CLASS BREAK	8-10-84 ACTUAL
3	EXPANSION LOOP	
8	SHOP WELDS	
16	QA/QC INTERVIEWS	
19	CONDUIT SEEPAGE	
4	UPGRADE TO NCRs	8-27-84
5	CONDITIONAL RELEASES	
7	BACKFILL	
9	J.A. JONES WELDERS	
11	CADWELDING	
14	SPEED LETTERS	
15	'D' LEVEL WELDING	
17	EXPANSION ANCHORS	
21	SYSTEM TRANSFER	
22	WELDER QUALIFICATIONS	
1	MERCURY & T.B. INSPECTORS	9-3-84
6	DISPOSITIONING OF NCRs	
10	JONES & FEGLES INSPECTORS	
12	MAIN STEAM RESTRAINTS	
13	MISSING NCRs	
18	TWO-OVER-ONE WALKDOWNS	
20	GEO TESTING PERSONNEL	
23	MERCURY/EBASCO/LP&L	
	COLLECTIVE SIGNIFICANCE	9-19-84

PRE-LICENSING ASSESSMENT
ISSUES 1, 10 & 20
INSPECTION AND TESTING PERSONNEL QUALIFICATIONS

NRC DESCRIPTION OF CONCERN:

- UNQUALIFIED INSPECTORS MAY HAVE INSPECTED SAFETY-RELATED SYSTEMS

NRC DIRECTION:

- VERIFY CREDENTIALS OF 100% OF SITE QA/QC PERSONNEL
- REINSPECT THE WORK PERFORMED BY INSPECTORS FOUND UNQUALIFIED
- VERIFY CERTIFICATION OF REMAINING SITE QA/QC PERSONNEL TO ANSI 45.2.6 - 1973

- LP&L WILL VALIDATE CREDENTIALS OF ALL SITE QA/QC PERSONNEL
- VALIDATION OF INSPECTOR QUALIFICATIONS WILL BE TO ANSI 45.2.6 - 1973
  - x THREE LEVELS
  - x LEVEL II
    - GRADUATE OF 4 YR. ENGR/SCIENCE COLLEGE + 2 YRS INSP EXPERIENCE
    - H.S. GRADUATE PLUS 4 YEARS INSP EXPERIENCE

• NOT ABSOLUTE • OTHER FACTORS • COMPETENTLY PERFORM FUNCTION	SUBJECTIVE
- INSPECTOR QUALIFICATION PROCESS
  - FULLY QUALIFIED
  - QUESTIONABLE ——————→ RESOLVED (EVALUATION CRITERIA NEEDEI TO MINIMIZE SUBJECTIVITY)
  - QUALIFICATIONS NOT VERIFIABLE
- REINSPECTION WILL BE PERFORMED AS CONSERVATIVELY APPROPRIATE
- VERIFICATION OF REMAINING QA/QC PERSONNEL TO ANSI 45.2.6 - 1973

ISSUES 1, 10 & 20 (CONT'D)

VALIDATION PROCESS

- EBASCO:
  - REVIEW PROGRAM REQUIREMENTS OF ALL CONTRACTORS
  - REVIEW/COLLECT DATA (ALL EXCEPT LP&L) ≅ 2110
  - BACKGROUND CHECKS (NO LP&L OR EBASCO) ≅ 1000 (40/DAY)
  - IDENTIFY INSPECTORS WHOSE QUALIFICATIONS AGAINST 45.2.6 NOT VERIFIABLE
- LP&L
  - AUDITING EBASCO IMPLEMENTATION OF EBASCO PROCEDURE
  - REVIEW ALL LP&L AND EBASCO + 30% SAMPLE OF QUALIFIED ≅ 1200
  - BACKGROUND CHECKS ALL LP&L AND EBASCO AND REMAINDER ≅ 1170 (40/DAY)
  - AUDITING EBASCO IMPLEMENTATION OF EBASCO PROCEDURE
  - REIVEW/FINAL DETERMINATION ON ALL INSPECTORS WHOSE QUALIFICATIONS NOT VERIFIABLE
- TASK FORCE
  - VALIDATION
  - REVIEW/COMMENT ON PROCEDURE
  - OVERVIEW PROCESS
  - AUDIT RESULTS (NOT YET INITIATED) (REQUESTED TO REVIEW ALL LP&L)

TO DATE

- 95% FIRST PASS
- ADDITIONAL DATA NEEDED ON ABOUT 45%
- BACKGROUND CHECKS ABOUT 15% COMPLETE
- ABOUT 2% OF FIRST PASS SHOW QUALIFICATIONS MAY NOT BE VERIFIABLE

PROGRESS ON SPECIFIC CONTRACTS:

REVIEW IN PROCESS - LITTLE OR NO PROBLEMS FOUND:

- AMERICAN BRIDGE
- CB&I
- COMBUSTION ENGINEERING
- GEO (NDE)
- GULF
- EBASCO (NDE)

REVIEW IN PROCESS - ADDITIONAL DATA REQURIED:

- B&B
- FEGLES
- FISCHBACH & MOORE
- GEO (CMT)
- J A JONES
- NISCO
- NOOTER
- SLINE
- TOMPKINS - BECKWITH
- WALDINGER
- EBASCO

REVIEW IN PROCESS - REINSPECTIONS IN PROCESS:

- MERCURY

LP&L ACTION TO PREVENT RECURRENCE:

- REQUIRE COMPLETE QUALIFICATION PACKAGE PRIOR TO START OF INSPECTION OR INCREASE IN LEVEL INCLUDING:

  RESUME
  CERTIFICATIONS
  VERIFICATION OF CREDENTIALS

- STATUS:

  ALL REINSPECTIONS STEMMING FROM THIS & CAT BY QUALIFIED INSPECTORS VERIFIED QUALIFICATIONS OF REMAINING SITE INSPECTORS-CREDENTIAL VALIDATION IN PROCESS

AUGUST 17, 1984

PRE-LICENSING ASSESSMENT
ISSUE #2
N1 INSTRUMENT LINE DOCUMENTATION

NRC DESCRIPTION OF CONCERN

- THE LACK OF QUALITY RECORDS FOR LOCALLY MOUNTED SAFETY-RELATED N1 INSTRUMENTS INSTALLED TO ANSI B31.1 CALLS INTO QUESTION THE ACCEPTABILITY OF THESE INSTALLED COMPONENTS.

LP&L ACTION REQUIRED

- PROVIDE MISSING DOCUMENTATION REQUIRED BY 10CFR50 APPENDIX B FOR THE B31.1 INSTRUMENTATION FOR LOCAL MOUNTED INSTRUMENTS.
- REVIEW OTHER DESIGN CHANGES AND DOCUMENTATION FOR ALL SAFETY-RELATED N1 INSTRUMENTATION SYSTEMS TO ASSURE ALL SYSTEM INSTALLATIONS WERE PROPERLY DOCUMENTED AND ACCEPTED.
- IF DOCUMENTATION CANNOT BE LOCATED, ACTION MUST BE TAKEN TO ASSURE AFFECTED PORTION OF SAFETY-RELATED SYSTEMS COMPLY WITH NRC REQUIREMENTS.

ISSUE #2
(CONT'D.)

LP&L PLAN

- COMPLETE THE ON-GOING REVIEW OF THE QUALITY RECORDS OF ALL SAFETY-RELATED N1 INSTRUMENT INSTALLATIONS.
- DETERMINE STATUS OF DOCUMENTATION FOR N1 INSTRUMENT INSTALLATIONS WHICH HAD PORTIONS INSTALLED TO ANSI B31.1 PRIOR TO APRIL 7, 1982.

PROGRESS TO-DATE

- OF THE 192 N1 INSTRUMENTS INSTALLED DURING THAT PERIOD, ONLY 12 N1 INSTRUMENT INSTALLATIONS ARE OF CONCERN.
- THE ANSI B31.1 PORTIONS OF THESE 12 N1 INSTRUMENT INSTALLATIONS WILL BE REWORKED, REINSPECTED AND DOCUMENTED IN ACCORDANCE WITH ASME SECTION III REQUIREMENTS PRIOR TO EXCEEDING 5% POWER.
- ALL OTHER N1 INSTRUMENT INSTALLATION QUALITY RECORDS HAVE BEEN REVIEWED AND FOUND ACCEPTABLE.
- RESPONSE SUBMITTED TO THE NRC AUGUST 10, 1984.

ISSUE #2
(CONT'D.)

LP&L ACTION TO PREVENT RECURRENCE

- AFTER APRIL 7, 1982, ALL N1 INSTRUMENT INSTALLATIONS WERE REQUIRED TO BE INSTALLED TO ASME SECTION III REQUIREMENTS FROM THE PROCESS LINE TO THE INSTRUMENT. THIS PREVENTED THE RECURRENCE OF LACK OF INSTALLATION AND INSPECTION RECORDS FOR N1 INSTRUMENTS.

SAFETY IMPLICATIONS

- THERE IS NO CONSTRAINT TO FUEL LOAD OR POWER OPERATION.

AUGUST 17, 1984

PRE-LICENSING ASSESSMENT
ISSUE #3
INSTRUMENTATION EXPANSION LOOP SEPARATION

NRC DESCRIPTION OF CONCERN

- SEPARATION CRITERIA HAD BEEN VIOLATED WHERE INSTRUMENT LINES FROM DIFFERENT TRAINS LEAVE THEIR RESPECTIVE TUBE TRACKS.

LP&L ACTION REQUIRED

- CORRECT THE SEPARATION CRITERIA VIOLATION FOUND IN SYSTEM 52A.
- PROVIDE A PROGRAM FOR REVIEW OF OTHER SAFETY-RELATED SYSTEMS FOR SEPARATION CRITERIA VIOLATIONS AND TAKE NECESSARY CORRECTIVE ACTIONS.

LP&L PLAN

- EVALUATE THE SEPARATION VIOLATION FOUND IN SYSTEM 52A.
- PERFORM A QC VERIFICATION OF ALL INSTRUMENT LINES WHERE REDUNDANT TUBING LINES WERE RUN IN PROXIMITY TO EACH OTHER TO ASSURE COMPLIANCE WITH THE SEPARATION CRITERIA.

ISSUE #3 (CONT'D)

PROGRESS TO DATE

- THE SEPARATION VIOLATION FOUND IN SYSTEM 52A HAS BEEN EVALUATED AND CORRECTIVE ACTION COMPLETED.
- QC VERIFICATION WALKDOWNS ARE COMPLETE.
- THE PRELIMINARY EVALUATION OF THE RESULTS OF THE WALKDOWNS HAS CONCLUDED THAT ONE ADDITIONAL SECTION OF TUBING IS REQUIRED TO BE ENCLOSED IN TUBE TRACK WHICH WILL BE COMPLETED PRIOR TO FUEL LOAD; ALL OTHER SEPARATION DEFICIENCIES DO NOT AFFECT THE SAFE OPERATION OF THE PLANT.

SAFETY IMPLICATIONS

- NO DEVIATIONS AFFECTING SAFETY IDENTIFIED.
- ANY DEVIATIONS FOUND DURING WALKDOWN TO BE CORRECTED PRIOR TO FUEL LOAD.

AUGUST 17, 1984

PRE-LICENSING ASSESSMENT
ISSUE #4
LOWER TIER CORRECTIVE ACTIONS ARE NOT BEING UPGRADED TO NCR's

NRC DESCRIPTION OF CONCERN

- LOWER TIER DOCUMENTS (FCR's, DCN's, EDN's, DN's) ARE NOT BEING UPGRADED TO NCR's.
- EDN's VOIDED WITH NO ACTION TAKEN.
- QA PROGRAM REQUIREMENTS FOR NONCONFORMANCE IDENTIFICATION, CONTROL AND PROPER ACTION DO NOT APPEAR TO HAVE BEEN COMPLIED WITH.

LP&L ACTION REQUIRED

- REVIEW ALL FCR's, DCN's, EDN's AND T-B DN's TO ASSURE THAT PROPER CORRECTIVE ACTION WAS TAKEN.
- REVIEW SHALL INCLUDE STEPS REQUIRED BY 10CFR50 APPENDIX B, CRITERION XVI AND 10CFR50.55(E).
- REVIEW FOR IMPROPER VOIDING OF ALL OTHER DESIGN CHANGES OR DISCREPANCY NOTICES AND OR MISCLASSIFICATION OF DCN's, FCR's OR DN's.

ISSUE #4 (CONT'D)

LP&L PLAN

- LP&L TO ASSESS LOWER TIER REPORTING SYSTEM.
- LP&L TO REVIEW NRC CITED EXAMPLES:
  - TO ASSURE PROPER CORRECTIVE ACTION WAS TAKEN
  - TO DETERMINE SAFETY SIGNIFICANCE [10CFR50.55 (E)]
- LP&L TO REVIEW AN ADDITIONAL SAMPLE (APPROXIMATELY 700 DOCUMENTS) TO PROVIDE CONFIDENCE THAT PROGRAM WAS ADEQUATE.

PROGRESS TO DATE

- NRC CITED EXAMPLES
  - 5 OF 72 SHOULD HAVE BEEN NCR's
  - NONE WERE EVALUATED AS REPORTABLE
- ACTUAL SAMPLE (APPROX. 940 DOCUMENTS)
  - 64 (7%) SHOULD HAVE BEEN NCR's
  - NONE WERE EVALUATED AS REPORTABLE
- IN MOST CASES, DECISION TO UPGRADE IS JUDGEMENTAL.
- DESIGN CHANGE/DISCREPANCY/NONCONFORMANCE SYSTEMS WERE COMPLIED WITH.

ISSUE #4 (CONT'D)

PROGRESS TO DATE (CONT'D)

- BASED ON RESULTS OF THE ADDITIONAL SAMPLE, LP&L:
  - HAS A 95% CONFIDENCE LEVEL THAT 95% OF UNSAMPLED DOCUMENTS CONTAIN NO SAFETY SIGNIFICANT (REPORTABLE) ISSUES.
  - BELIEVES THAT NO ADDITIONAL REVIEWS ARE NECESSARY.

LP&L ACTION TO PREVENT RECURRENCE

- ALL HARDWARE IDENTIFIED PROBLEMS ARE IDENTIFIED USING A COMMON FORM (LCIWA). THESE PROBLEMS ARE EVALUATED FOR NON-CONFORMING CONDITIONS AND REPORTABILITY.
- PROBLEMS ENCOUNTERED DURING THE INSTALLATION OF PLANT MODIFICATIONS WHICH MAY REQUIRE A CHANGE IN DESIGN ARE APPROVED PRIOR TO THE IMPLEMENTATION OF THE CHANGE IN ACCORDANCE WITH THE STATION MODIFICATION PROGRAM.

PRE-LICENSING ASSESSMENT
ISSUE #5
VENDOR DOCUMENTATION - CONDITIONAL RELEASE

NRC DESCRIPTION OF CONCERN

- THE STAFF FOUND DEFICIENCIES WITH THE HANDLING OF CONDITIONAL CERTIFICATION OF EQUIPMENT FOR CE

- THE SAFETY SIGNIFICANCE IS THAT PROBLEMS WITH VENDOR QA RECORDS COULD AFFECT INSTALLED SAFETY-RELATED EQUIPMENT

NRC DIRECTION

- "LP&L SHALL EXAMINE THEIR RECORDS AND DETERMINE IF CONDITIONAL CERTIFICATIONS OF EQUIPMENT HAVE BEEN IDENTIFIED, REVIEWED AND PROMPTLY RESOLVED"

LP&L PLAN

- CE CONDITIONAL RELEASES RESOLVED EXCEPT 2 DUE 9/15/84
  - NO ADVERSE CONSEQUENCES FOUND
- REVIEW CONDUCTED IN CASES OF SIMILAR EXPOSURE
  - VQAR CONCERNS PRE-SHIPMENT
  - EBASCO N.Y.O. NCRs
  - MANUFACTURE, DELIVER AND ERECT CONTRACTS

NO SAFETY CONCERNS FOUND

- RECEIPT INSPECTION PROCESS REVIEWED

  - QI-10-006 ADEQUATE

  - 1 OF 148 CE SPARE PARTS ORDERS HAD CONDITIONAL CERT-TAGGED/TRACKED

AUGUST 17, 1984

PRE-LICENSING ASSESSMENT
ISSUE #6
NRC DESCRIPTION OF CONCERN

NRC DESCRIPTION OF CONCERN

- o SOME EBASCO AND MERCURY NCRs AND EBASCO DRs WERE QUESTIONABLY DISPOSITIONED

LP&L ACTION REQUIRED

- o PROPOSE A PROGRAM THAT ASSURES THAT ALL NCRs AND DRs ARE
  - APPROPRIATELY UPGRADED
  - ADEQUATELY DISPOSITIONED AND
  - CORRECTIVE ACTION COMPLETED
- o CORRECT ANY PROBLEMS DETECTED

LP&L PLAN

- o ADDRESS SPECIFIC DEFICIENCIES IDENTIFIED BY NRC
- o REVIEW EBASCO NCRs
- o PERFORM INDEPTH VERIFICATION, SAMPLE OF EBASCO NCRs
- o REVIEW MERCURY NCRs
- o REVIEW DR PROCESS AND CITED DRs

ISSUE 6 (CONT'D)

PROGRESS TO DATE

- o REVIEW EBASCO NCRs - COMPLETE
- o IN DEPTH VERIFICATION - IN PROCESS
- o REVIEW MERCURY NCRs - COMPLETE
- o REVIEW DR PROCESS AND CITED DRs - IN PROCESS

ISSUE #7

BACKFILL SOIL DENSITIES

DESCRIPTION OF NRC CONCERN

- RECORDS MISSING FOR IN-PLACE DENSITY IN AREA 5
- THESE DOCUMENTS ARE IMPORTANT - SEISMIC RESPONSE A FUNCTION OF SOIL DENSITIES

NRC DIRECTION (PARAPHRASED)

- REVIEW ALL SOIL PACKAGES FOR COMPLETENESS AND ADEQUACY AND
- PROVIDE CLOSURE ON TECHNICAL CONDITIONS, OR
- PERFORM SUITABLE TESTS, OR
- JUSTIFY BY ANALYSIS

LP&L RESPONSE

- EBASCO/LP&L/GEO RECORDS CONSOLIDATED
- DENSITY TESTS LOCATED
- A FEW INSPECTION RECORDS NOT FOUND
- THOROUGH DATA REVIEW PERFORMED
- PERVIOUS AND CURRENT ANALYSES INDICATE SPECS MET

CAUSE

- DID NOT LEAD INSPECTOR TO RIGHT PLACE
- A FEW INSPECTION RECORDS NOT SUBMITTED BY CONTRACTOR

AUGUST 17, 1984

PRE-LICENSING ASSESSMENT
ISSUE #8
VISUAL EXAMINATION OF SHOP WELDS DURING HYDROSTATIC TESTING

NRC DESCRIPTION OF CONCERN

- LACK OF PROOF OF VISUAL INSPECTION OF ALL SHOP WELDS DURING HYDROSTATIC TESTING, BY TOMPKINS-BECKWITH, OF ASME CLASS 1 AND 2 PIPING SYSTEMS.

LP&L ACTION REQUIRED

- PROVIDE DOCUMENTED EVIDENCE THAT SHOP WELDS WERE INDEED INSPECTED, OR
- SUBMIT A STATEMENT ATTESTING TO SHOP WELD INSPECTION BY RESPONSIBLE PERSONNEL WHO HAD WITNESSED THE HYDRO TESTS.

LP&L PLAN

- REVIEW TO ASSURE ALL CLASS 1 AND 2 PIPING SYSTEMS AND SHOP WELDS HAD BEEN HYDROTESTED AND THAT APPROPRIATE INSPECTION DOCUMENTS DO EXIST, AND
- SUBMIT A STATEMENT FROM RESPONSIBLE PERSONNEL WHO WITNESSED THE TESTING THAT SHOP WELDS WERE INSPECTED.

ISSUE #8 (CONT'D)

PROGRESS TO DATE

- THE REVIEW OF THE HYDROSTATIC TEST RECORDS HAS BEEN COMPLETED. THE REVIEW SUBSTANTIATED THE FOLLOWING:
  - ALL ASME CLASS 1 AND 2 PIPING SYSTEMS WERE TESTED IN ACCORDANCE WITH CODE REQUIREMENTS.
  - ALL TESTS WERE INSPECTED AND ACCEPTED BY TOMPKINS-BECKWITH QC INSPECTORS, AUTHORIZED NUCLEAR INSPECTOR, AND TEST COORDINATOR.
  - TEST DOCUMENTATION WAS IN ACCORDANCE WITH CODE REQUIREMENTS (ASME CODE DOES NOT REQUIRE EACH WELD EXAMINED TO BE LISTED).
  - ASME REQUIREMENTS WERE MET AS ATTESTED TO BY ANI SIGNATURE ON HYDROSTATIC TEST AND N-5 REPORTS.
- A STATEMENT FROM TOMPKINS-BECKWITH'S AUTHORIZED NUCLEAR INSPECTOR HAS BEEN SUBMITTED CONFIRMING THAT SHOP WELDS WERE INSPECTED.

ISSUE #8 (CONT'D)

LP&L ACTION TO PREVENT RECURRENCE

- NONE REQUIRED

SAFETY IMPLICATIONS

- LP&L BELIEVES THAT THIS ISSUE IS OF NO SAFETY SIGNIFICANCE TO FUEL LOAD OR POWER OPERATION SINCE NO DEFICIENCY EXISTS.

AUGUS. 17, 1984

PRE-LICENSING ASSESSMENT
ISSUE #9
DOCUMENTATION FOR INSTRUMENT CABINETS

NRC DESCRIPTION OF CONCERN

- NRC REVIEW OF INSTRUMENT CABINET SUPPORT INSTALLATION RECORDS INDICATE:
  - SOME DOCUMENTATION ON WELDS APPEAR TO BE MISSING.
  - INVOLVED WELDERS MAY NOT BE CERTIFIED TO ALL POSITIONS USED.

LP&L ACTION REQUIRED

- ATTEMPT TO LOCATE THE MISSING DOCUMENTS
- DETERMINE IF THE WELDERS WERE APPROPRIATELY CERTIFIED

LP&L PLAN

- SPECIFIC PROBLEM -
  - ISSUE NCR-W3-7549 TO IDENTIFY AND RESOLVE DEFICENCIES
  - DETERMINE IF WELDERS WERE APPROPRIATELY CERTIFIED
  - LOCATE MISSING DOCUMENTS OR TAKE APPROPRIATE ACTION
- GENERIC IMPLICATIONS -
  - DETERMINE IF OTHER WELD RELATED J A JONES WORK HAS MISSING DOCUMENTS

ISSUE #9 (CONT.D)

PROGRESS TO DATE

- SPECIFIC PROBLEM -
  - DOCUMENTATION FOR WELDING 7 OF THE 18 INSTRUMENTATION CABINETS NOT LOCATED. 4 OF THE 7 HAVE PARTIAL DOCUMENTATION, 3 HAD NO DOCUMENTATION.
  - THE 7 INSTRUMENT CABINETS HAVE BEEN REINSPECTED. THE WELDS ARE ACCEPTABLE.
  - J A JONES WELDING INSPECTION REPORTS CONFIRM WELDERS CERTIFIED TO POSITIONS USED.
- GENERIC IMPLICATIONS -
  - REVIEW IDENTIFIED OTHER POTENTIALLY J A JONES WELD RELATED WORK ITEMS.
  - TO DATE, 5 J A JONES WELD RELATED WORK ITEMS LACK DOCUMENTATION.
  - INSPECT/EVALUATE THE 5 WORK ITEMS FOR ACCEPTABILITY, ECD 8/24/84.

PRE-LICENSING ASSESSMENT

ISSUE #11

CADWELDING

NRC DESCRIPTION OF CONCERN

- LP&L HAS PROVIDED ONLY LIMITED DATA (IN OTHER THAN RAW FORM) ON STATISTICS OF THE CADWELD TESTING PROGRAM
- THE NCR DOCUMENTING CADWELD TESTING DEFICIENCIES HAS BEEN REOPENED AS RESULT OF CAT AND ALL ISSUES HAVE NOT BEEN RESOLVED

NRC DIRECTION

- LP&L SHALL PROVIDE CADWELD DATA IN SUCH A FORM THAT IT CAN BE READILY COMPARED TO THE ACCEPTANCE CRITERIA (REQUIREMENTS DETAILED)

LP&L PLAN

PREPARE LISTINGS OF CADWELDS BROKEN DOWN BY ATTRIBUTES SPECIFIED FOR ADMINISTRATION OF TEST CYCLES INCLUDING BY:

- BUILDING OR STRUCTURAL ELEMENT
- TEST PROGRAM TYPE
- BAR SIZE
- BAR POSITION
- CADWELDER

DATA PROVIDED IN EACH CATEGORY WILL INCLUDE:

- TOTAL SPLICES
- VISUAL REJECTS
- PRODUCTION TESTS AND FAILURES
- SISTER TESTS AND FAILURES
- WELDER QUALIFICATION AND REQUALIFICATION INCLUDING DATES

IN ADDITIONAL NCR-W3-6234 WILL BE SUPPLEMENTED TO ADDRESS ANY NEW FINDINGS OF A COMPLETE REVIEW FOR SPECIFICATION COMPLIANCE OF ALL DATA GENERATED.

PROGRESS TO DATE

- THE LISTINGS HAVE BEEN COMPLETED AND SUMMARIZED IN TABULAR FORM. THE REVIEW AND EVALUATION FOR SPECIFICATION COMPLIANCE IS UNDERWAY, WITH ECD OF 8/24/84.

PRE-LICENSING ASSESSMENT
ISSUE #12
MAIN STEAM LINE FRAMING RESTRAINTS

NRC DESCRIPTION OF CONCERN

- NRC STAFF FOUND SEVERAL BOLTED CONNECTIONS HAD NOT BEEN INSPECTED (OR DOCUMENTED) FOR THE FRAMING

NRC DIRECTION

- COMPLETE THE INSPECTIONS OF THE RESTRAINTS REQUIRED BY SCD
- MAKE DOCUMENTATION OF SUCH INSPECTIONS AVAILABLE TO THE STAFF

LP&L PLAN

- ISSUED NCR-W3-7736 TO IDENTIFY AND RESOLVE ALL STEAM GENERATOR BOLT DEFICIENCIES
- PROCEDURES PREPARED AND PERSONNEL TRAINED FOR REVIEW AND CORRECTIVE ACTION PROGRAM
- REVIEW THE SCOPE OF AMERICAN BRIDGE WORK TO ASSURE 100% IDENTIFICATION INCLUDING A REVIEW OF DOCUMENTS RELATED TO AMERICAN BRIDGE (FCRs, DCNs, IRs. ETC)
- REINSPECTION OF ALL AMERICAN BRIDGE BOLTED CONNECTIONS COMPLETE

PROGRESS TO DATE

- SCOPING COMPLETED
- APPROXIMATELY 12,000 BOLTS INVOLVED WITHIN 340 CONNECTIONS
- APPROXIMATELY 700 BOLTS OUT OF APPROXIMATELY 12,000 INSTALLED REPLACED TO DATE
- MAJORITY OF THE DEFICIENCIES ($\approx$60%) RELATE TO THE INABILITY TO READILY CONFIRM THE REQUIRED BOLTING MATERIAL
- APPROXIMATELY 150 BOLTS REMAIN TO BE REPLACED

LP&L ACTION TO PREVENT RECURRENCE

- REVIEW TO ASSURE SCOPING IS ACCURATE AND CORRECTIVE ACTION DOCUMENTED

AUGUST 17, 1984

PRE-LICENSING ASSESSMENT
ISSUE #13
MISSING NCR'S

NRC DESCRIPTION OF CONCERN

- 10 NCR'S WERE NOT IN CARD INDEX FILE
- OTHERS WERE MISSING FROM EBASCO QA VAULT

LP&L ACTION REQUIRED

- OBTAIN MISSING NCR'S
- EXPLAIN WHY THEY WERE NOT MAINTAINED IN FILING SYSTEM
- REVIEW FOR PROPER VOIDING
- ASSURE NCR'S ARE PROPERLY FILED FOR TRACKING AND CLOSURE

ISSUE #13
(CONT'D.)

LP&L PLAN

- INVESTIGATE/EXPLAIN SOURCE OF PROBLEM
- DETERMINE STATUS OF NCR'S QUESTIONED
- DETERMINE IF ANY ADDITIONAL NCR'S WERE NOT ACCOUNTED FOR
- CORRECT DISCREPANCIES FOUND

LP&L PROGRESS TO-DATE

- ALL ACTIONS COMPLETE

AUGUST 17, 1984

PRE-LECENSING ASSESSMENT
ISSUE # 14
J.A. JONES SPEEDLETTERS AND EIRS

NRC DESCRIPTION OF CONCERN:

o DURING THE EBASCO QA REVIEW OF J.A. JONES SPEED LETTERS AND ENGINEERING INFORMATION REQUESTS, SEVERAL ITEMS WHICH COULD AFFECT PLANT SAFETY WERE NOTED. BASED ON ITS SAMPLE OF THESE ACTIONS, THE STAFF DOES NOT EXPECT THAT ANY OF THESE ITEMS WILL SIGNIFICANTLY AFFECT PLANT SAFETY.

LP&L ACTION REQUIRED:

o THE APPLICANT SHOULD COMPLETE THE ACTIONS IDENTIFIED IN THESE REVIEWS AND ISSUES RAISED SHALL BE RESOLVED PROMPTLY.

LP&L PLAN:

o LP&L'S APPROACH TO RESOLUTION OF THIS CONCERN CONSISTS OF THE FOLLOWING:

  - o COMPLETE THE REVIEW OF THE J.A. JONES SPEED LETTERS AND ENGINEERING INFORMATION REQUEST (APPROXIMATELY 1100).
  - o MINIMUM 10% REVIEW OF INFORMATION REQUEST DOCUMENTS UTILIZED BY REMAINING SAFETY RELATED CONTRACTORS (15 CONTRACTORS).

ISSUE #14 (CONT'D)

PROGRESS TO DATE

- J. A. JONES REVIEW IS COMPLETE WITH NO ITEMS REQUIRING MODIFICATION
- BASED ON SAMPLE RESULTS, THERE WAS AN EXPANSION OF THE REVIEW PROCESS
  - ANY CONTRACTOR WITH 50 OR LESS DOCUMENTS RECEIVED A TOTAL REVIEW
  - BASED ON THE TYPE OR NUMBER OF FINDINGS, THE REVIEW OF 3 CONTRACTORS DOCUMENTS WAS EXPANDED
- NO FINDINGS TO DATE HAVE RESULTED IN MODIFICATIONS
- TWO CONTRACTORS ARE STILL BEING EVALUATED, OF WHICH ONE CONTRACTOR WILL REQUIRE ADDITIONAL PHYSICAL INSPECTIONS

LP&L ACTION TO PREVENT RECURRENCE

- RETRAINING OF INDIVIDUALS INVOLVED WITH INFORMATION REQUESTS WITH EMPHASIS ON APPROPRIATE DOCUMENTATION OF DESIGN CHANGES

AUGUST 17, 1984

PRE-LICENSING ASSESSMENT
ISSUE #15
WELDING OF "D" LEVEL MATERIAL INSIDE CONTAINMENT

NRC DESCRIPTION OF CONCERN

- "D" LEVEL MATERIAL WELDING FOR CONTAINMENT ATTACHMENTS, SPECIFICALLY CONTAINMENT SPRAY PIPING SUPPORTS, LACKS WELD ROD TRACEABILITY AND WELDER IDENTIFICATION AND CERTIFICATION.

LP&L ACTION REQUIRED

- LOCATE THE DOCUMENTATION AND VERIFY THE ADEQUACY OF THE INFORMATION, OR
- PERFORM A MATERIAL ANALYSIS AND NDE WORK, OR
- REWORK THE WELDS

ISSUE #15
(CONT'D.)

LP&L PLAN

- REVIEW SPECIFIC SUPPORTS IDENTIFIED
- SCOPE "D" MATERIAL WELDS
- CONDUCT DOCUMENT SEARCH WITH CONTRACTOR
- PERFORM APPROPRIATE SAMPLE RE-INSPECTION ON WELDS WITHOUT DOCUMENTATION

PROGRESS TO-DATE

- THE SPECIFIC SUPPORTS IDENTIFIED ARE TEMPORARY AND HAVE BEEN ABANDONED
- SCOPING COMPLETE
- DOCUMENT SEARCH COMPLETE. SINCE CB&I QA MANUAL REQUIREMENTS FOR DOCUMENTATION DO NOT APPLY TO "D" MATERIAL WELDS, NOT ALL DOCUMENTATION IS AVAILABLE.
- THE SEISMIC CATEGORY I STRUCTURES OF "D" MATERIAL WERE IDENTIFIED AND A 10% SAMPLE REPRESENTING MAJOR STRUCTURES SELECTED FOR REINSPECTION. INSPECTION COMPLETE. NO STRUCTURALLY SIGNIFICANT DEFICIENCIES IDENTIFIED.

ISSUE #15
(CONT'D.)

PROGRESS TO-DATE (CONT'D)

- UNIQUE HEAT NUMBER TRACEABILITY NOT OBTAINABLE, BUT ALL WELD ROD ACCEPTABLE.

- ALL WELDERS WERE CERTIFIED.

PRE-LICENSING ASSESSMENT

ISSUE #16

SURVEYS AND EXIT INTERVIEWS OF QA PERSONNEL

NRC DESCRIPTION OF CONCERN

- SURVEY AND EXIT INTERVIEWS NOT VIGOROUSLY PURSUED FOR ROOT CAUSE, SAFETY SIGNIFICANCE, GENERIC IMPLICATIONS
- INVESTIGATIONS NOT TIMELY
- LP&L PROGRAM NOT INDEPENDENT OR FORMAL
- LP&L SENIOR MANAGEMENT NOT WELL INFORMED

LP&L INITIAL PROGRAM

- VOLUNTARILY INITIATED IN JANUARY 1984 - 407 INTERVIEWS CONDUCTED
- LIMITED TO QA/QC PERSONNEL
- CONDUCTED BY LP&L QA STAFF
- EXIT INTERVIEW FOLLOW-UP NOT TIMELY
- PROGRAM NOT AUDITABLE, SYSTEMATIC RECORDS NOT MAINTAINED ON FOLLOW-UP
- 72 CONCERNS IDENTIFIED FROM INITIAL INTERVIEWS, 13 OF WHICH REQUIRED CORRECTIVE ACTION:
  - 4 PROCEDURE REVISIONS
  - 5 NCR IMPACT
  - 3 RECORDS REVIEW
  - 1 LIMITED INSPECTION
- AS OF JULY 1, 174 EXIT INTERVIEWS CONDUCTED
  - SEVERAL ADDITIONAL CONCERNS IDENTIFIED, ONE REQUIRED CORRECTIVE ACTION
- REVIEW BY ISEG IN JUNE - DEVELOPED ONE ADDITIONAL SAFETY CONCERN

PROGRAM BENEFITS

- MAJORITY HAD NO CONCERNS
- MANY CONCERNS IDENTIFIED
- FOLLOW-UP AND CORRECTIVE ACTION RESULTED

PROGRAM SHORTCOMINGS

- NOT AUDITABLE
- NO FORMAL PROCEDURES
- NOT INDEPENDENT, UNTRAINED INTERVIEWERS

LP&L PLAN

- QUALITY TEAM ESTABLISHED
  - Q.T.C. INDEPENDENT CONSULTANT
  - TRAINED PERSONNEL
- QUALITY TEAM LEADER REPORTS TO LP&L SENIOR VICE PRESIDENT
  - LP&L QA WILL AUDIT
  - REGULAR REPORTING - WRITTEN AND VERBAL
  - AUDITABLE PROGRAM - FORMAL PROCEDURES
  - CONFIDENTIALITY
  - AGGRESSIVE FOLLOW-UP
  - ALL PERSONNEL - EXIT INTERVIEWS
  - RETROSPECTIVE AND PROSPECTIVE PROGRAM

PROGRESS TO DATE

- EXCELLENT RESULTS ON PROGRAM TO DATE
  - NEW PROGRAM IN PLACE
  - OLD CONCERNS PRIORITIZED AND ADDRESSED
  - NEW CONCERNS BEING ADDRESSED

SAFETY SIGNIFICANCE

- SAFETY CONCERNS RESOLVED PRIOR TO EXCEEDING 5% POWER

PRE-LICENSING ASSESSMENT
ISSUE #17
MERCURY INSTALLATION ANCHOR INSTALLATION

NRC DESCRIPTION OF CONCERN

- A REVIEW OF MERCURY PROCEDURE SP-666 REVISION 8, "DRILLED IN EXPANSION ANCHORS . . .", REVEALED THAT IT DOES NOT REQUIRE QC VERIFICATION OF MANY CHARACTERISTICS NECESSARY TO ENSURE PROPER INSTALLATION.

LP&L ACTION REQUIRED

- REVISE MERCURY PROCEDURE SP-666
- INITIATE A REINSPECTION PROGRAM OF SUFFICIENT SIZE AND SCOPE TO INDICATE WHETHER THESE ANCHORS ARE ABLE TO PERFORM THEIR INTENDED FUNCTION.

LP&L PLAN

- REVIEW SP-666 TO DETERMINE ADEQUACY
- REVIEW OF MERCURY DOCUMENTATION AND FIELD VERIFICATIONS DURING TRANSFER REVIEW
- PERFORM SAMPLE RE-INSPECTION TO ENSURE ADEQUACY
- ANALYZE CRITICAL ANCHOR TO EMBEDDED PLATE INSTALLATIONS

ISSUE #17 (CONT'D)

PROGRESS TO DATE

- o SP-666 HAS BEEN REVIEWED FOR ADEQUACY
  - REFERENCES ARE DRAWN TO OTHER DOCUMENTS IN THE PROCEDURE WHICH DELINEATE INSTALLATION/INSPECTION CRITERIA

- o REVIEW OF MERCURY EXPANSION ANCHOR INSTALLATION RECORDS - FROM TRANSFER REVIEW
  - 896 INSPECTION REQUESTS
  - 196 DISCREPANCY NOTICES WRITTEN
  - 15 D.N.'S REQUIRED REWORK

- o EACH INSPECION BY EBASCO QC CONSISTED OR:
  - WITNESSING TORQUE VERIFICATION
  - CHECK I.D. MARK ON BOLT AND DETERMINE PROPER EMBEDMENT
  - Q.C. PROVIDED A SKETCH OF EXPANSION PLATE AND LOCATION OF THE BOLTS ON THE PLATE

- o REINSPECTION PROGRAM BEGUN 8-15-84 AND INLUDES:
  - SPACING BETWEEN ADJACENT ANCHORS
  - SPACING BETWEEN AN ANCHOR AND THE EDGE OF A CONCRETE SURFACE
  - MINIMUM ANCHOR EMBEDMENT DEPTH

- o ANALYSIS OF CRITICAL ANCHOR TO EMBEDDED PLATE INSTALLATIONS COMPLETE

PRE-LICENSING ASSESSMENT
ISSUE #18
DOCUMENTATION OF WALKDOWNS
OF NON-SAFETY RELATED EQUIPMENT

NRC DESCRIPTION OF CONCERN

- FOLLOW-UP DOCUMENTATION OF FINAL WALKDOWNS DID NOT LIST EQUIPMENT IN DETAIL. THEREFORE IT COULD NOT BE CONCLUDED THAT INSTRUMENT AIR PIPING, TUBING AND SUPPORTS HAD BEEN ADEQUATELY ADDRESSED REGARDING POTENTIAL DAMAGE TO SAFETY EQUIPMENT.

LP&L ACTION REQUIRED

- DOCUMENTATION SHOULD BE PROVIDED THAT CLEARLY SHOWS WHAT EQUIPMENT WAS REVIEWED DURING THE WALKDOWNS AND ON WHAT BASIS IT WAS CONCLUDED THAT THE INSTALLATION WAS ACCEPTABLE.

LP&L PLAN

- DESCRIBE DESIGN ACTIONS TAKEN TO PREVENT NON-SEISMIC FAILURES FROM ADVERSELY AFFECTING SAFETY-RELATED COMPONENTS
- PROVIDE DOCUMENTATION ON WALKDOWNS INCLUDING BASES FOR ACCEPTANCE
- REINSPECT NON-SEISMIC PORTIONS OF INSTRUMENT AIR SYSTEM

ISSUE #18 (CONT'D)

PROGRESS TO DATE

- DOCUMENTATION ON WALKDOWNS AND DESCRIPTION OF DESIGN ACTIONS TO BE INCLUDED IN RESPONSE
- REINSPECTION OF INSTRUMENT AIR TO BE COMPLETE 8/31.

PRE-LICENSING ASSESSMENT
ISSUE #19
WATER IN THE BASEMAT INSTRUMENTATION CONDUIT

NRC DESCRIPTION OF CONCERN

- WATER WAS NOTED IN AN ELECTRICAL CONDUIT THAT PENETRATED THE BASEMAT. IF THE SEALS SHOULD FAIL THERE IS A POTENTIAL DIRECT PATH FOR GROUND WATER TO FLOOD THE AUXILIARY BUILDING BASEMAT.

LP&L ACTION REQUIRED

- LP&L SHOULD ASSURE THAT POTENTIAL DIRECT ACCESS PATHS OF WATER ARE PROPERLY SEALED TO PREVENT FLOODING.

LP&L PLAN

- IDENTIFY EACH CONDUIT STUB-UP WHICH SHOWS EVIDENCE OF PAST OR PRESENT LEAKING. LEAKS REVIEW BY ENGINEERING TO DETERMINE WHETHER A SAFETY HAZARD.

ISSUE #19
(CONT'D)

PROGRESS TO-DATE

- o WALKDOWN OF CONDUITS COMPLETE
- o EVALUATION COMPLETE, FINDINGS:
  - PERMANENT CONDUITS ENTIRELY WITHIN BUILDING PRESENT NO DIRECT LEAKAGE PATH FOR GROUNDWATER AND ARE NOT A SAFETY HAZARD.
  - CONDUITS ENTERING THE BASEMAT FROM OUTSIDE HAVE BEEN GROUTED AND THEIR BLOCKOUT PITS FILLED WITH CONCRETE, SO THAT THEY NO LONGER SERVE AS LEAKAGE PATHS FOR GROUND WATER.
- o THE PIEZOMETER RISER WILL BE SEALED.
- o THE PIEZOMETER STANDPIPE WILL BE PRESSURE GROUTED
- o THE SILICONE ELASTOMER SEAL MATERIAL WILL BE USED TO REPLACE THE EXISTING SEAL MATERIAL FOR CONDUIT STUB-UP WHICH BECOMES AN INCONVENIENCE TO PLANT MAINTENANCE ON ACCOUNT OF LEAKAGE OF WATER.

ISSUE #19
(CONT'D.)

LP&L ACTION TO PREVENT RECURRENCE

- THE REPLACEMENT OF INDIVIDUAL CONDUIT SEALS WILL BE UNDERTAKEN BASED ON OPERATING AND MAINTENANCE CONSIDERATIONS.

SAFETY IMPLICATIONS

- THERE IS NO RECOGNIZED REASON THAT THIS ISSUE SHOULD CONSTRAIN FUEL LOAD OR POWER GENERATION.

AUGUST 17, 1984

PRE-LICENSING ASSESSMENT
ITEM #21
LP&L QA CONSTRUCTION SYSTEM STATUS AND TRANSFER REVIEWS

NRC DESCRIPTION OF CONCERN

- THE FINDINGS GENERATED BY LP&L CONSTRUCTION QA AS A RESULT OF DOCUMENTATION REVIEWS AND PHYSICAL WALKDOWNS ON 15 SYSTEMS MAY NOT HAVE BEEN ADEQUATELY DISPOSITIONED.
- OPEN FINDINGS NOT PROPERLY IDENTIFIED TO LP&L OPERATIONS MAY HAVE ADVERSELY AFFECTED THE TESTING CONDUCTED ON THE 15 SYSTEMS.

LP&L ACTION REQUIRED

- COMPLETE THE REVIEW OF ALL SIGNIFICANT LP&L STATUS AND TRANSFER REVIEW FINDINGS TO ENSURE CLOSURE OR PROPER TRACKING.
- FOR ANY LP&L OPEN FINDINGS NOT PROPERLY IDENTIFIED DETERMINE WHETHER THIS CONDITION ADVERSELY AFFECTED THE TESTING CONDUCTED FOR THESE SYSTEMS.

ITEM #21
(CONT'D.)

LP&L PLAN

- LP&L AND EBASCO PERFORM REVIEW TO IDENTIFY CORRESPONDENCE ASSOCIATED WITH THE 15 SYSTEMS LISTED BY THE NRC AS HAVING QUESTIONABLE DISPOSITIONS.
- EBASCO TO PERFORM REVIEW TO DETERMINE IF ALL LP&L COMMENTS HAD BEEN RESPONDED TO AND ACCEPTED BY LP&L. THIS REVIEW WILL APPLY TO SAFETY-RELATED SYSTEMS.
- LP&L WILL PERFORM REVIEW TO DETERMINE GENERIC IMPLICATIONS OR SIGNIFICANT TRENDS OF COMMENTS GENERATED ON SYSTEMS REVIEWED. THIS WILL BE DONE ON A CONTRACTOR BASIS.
- LP&L PERFORM REVIEW TO DETERMINE WHETHER OR NOT THERE WAS IMPACT ON SYSTEM TESTING OR OPERATION BY THE COMMENTS NOT RESPONDED TO BY EBASCO.

ITEM #21
(CONT'D.)

LP&L PROGRESS TO-DATE

- REVIEW COMPLETE ON 15 SYSTEMS IDENTIFIED BY NRC. LP&L COMMENTS HAVE BEEN RESOLVED.
- REVIEW COMPLETED BY EBASCO ON LP&L COMMENTS GENERATED DURING STATUS AND TRANSFER REVIEWS. LP&L COMMENTS HAVE BEEN RESOLVED.
- REVIEW FOR GENERIC IMPLICATIONS OR SIGNIFICANT TRENDS CONTAINED IN COMMENTS GENERATED FROM LP&L QA'S DOCUMENTATION REVIEWS AND WALKDOWNS WAS COMPLETED ON MAY 14, 1984. NONE WERE IDENTIFIED.
- LP&L START-UP PERFORMED A REVIEW OF THE COMMENTS ISSUED BY LP&L QA ON THE 15 SYSTEMS. THIS REVIEW DETERMINED THAT NONE WERE SIGNIFICANT OR WOULD HAVE IMPACTED SYSTEM TESTING OR OPERATION.

AUGUST, 1984

PRE-LICENSING ASSESSMENT
ISSUE #22

A) WELDER QUALIFICATION (MERCURY)

B) FILLER MATERIAL CONTROL (SITE WIDE)

ISSUE 22A
WELDER QUALIFICATION (MERCURY)

NRC DESCRIPTION OF CONCERN

- MERCURY WELDERS NOT QUALIFIED TO THE CORRECT WELDING PROCEDURE,
- MERCURY WELDERS QUALIFIED FOR A SPECIFIC PROCESS, EVEN THOUGH THEY WERE NOT TESTED FOR THAT PROCESS,
- ACTUAL DATES ON MERCURY QUALIFICATION RECORDS APPEAR QUESTIONABLE, AND
- ONE MERCURY WELDER MAY HAVE WELDED PRIOR TO BEING TESTED.

LP&L REQUIRED ACTION

- ATTEMPT TO LOCATE THE MISSING DOCUMENTATION AND DETERMINE IF THE WELDERS WERE PROPERLY QUALIFIED.
- IF THIS DOCUMENTATION CANNOT BE LOCATED, LP&L SHALL PROPOSE A PROGRAM TO ASSURE THE QUALITY OF WELDS PERFORMED BY QUESTIONABLY QUALIFIED WELDERS.

ISSUE 22A (CONT'D)
WELDER QUALIFICATION (MERCURY)

LP&L PLAN

- REVIEW THE SPECIFIC MERCURY WELDER QUALIFICATIONS QUESTIONED BY THE NRC STAFF TO DETERMINE ACCEPTABILITY.
- TAKE CORRECTIVE ACTION AS REQUIRED BY THE REVIEW.

PROGRESS TO DATE

- SPECIFIC MERCURY WELDER QUALIFICATIONS QUESTIONED BY NRC STAFF HAVE BEEN REVIEWED. REVIEW DETERMINED THAT QUALIFICATIONS ARE IN ORDER.
- NCR W3-7724 WAS GENERATED TO ADDRESS THREE DOCUMENTATION DISCREPANCIES NOTED BY NRC. A 100% REVIEW OF MERCURY WELDER QUALIFICATIONS FOR SIMILAR PROBLEMS WAS PERFORMED AND NO SIMILAR PROBLEMS WERE FOUND. NCR W3-7724 CORRECTIVE ACTION IS COMPLETE AND THE NCR HAS BEEN CLOSED.
- NCR W3-7218, OPENED TO ADDRESS MERCURY WELDER QUALIFICATION CONCERNS, GIVEN ADDITIONAL REVIEW. THIS REVIEW SHOWED THAT MERCURY WELDERS PERFORMING SAFETY/SEISMIC WELDMENTS WERE PROPERLY QUALIFIED AND NO ADDITIONAL CORRECTIVE ACTION WAS REQUIRED.

ISSUE #22B
FILLER MATERIAL CONTROL

NRC DESCRIPTION OF CONCERN

- BASED ON NRC STAFF REVIEW, "REBAKING" OF LOW HYDROGEN ELECTRODES DID NOT MEET ASME AND AWS CODE REQUIREMENTS.

LP&L REQUIRED ACTION

- LP&L SHALL PROVIDE ENGINEERING JUSTIFICATION FOR ALLOWANCE OF "REBAKE" TEMPERATURES AND HOLDING TIMES THAT DIFFER FROM REQUIREMENTS OF ASME AND AWS CODES.

LP&L PLAN

- TO CLARIFY THE WELDING MATERIAL STORAGE REQUIREMENTS.
- TO ASSURE THAT TECHNICAL DEVIATION FROM THE CODE WAS PROPERLY EVALUATED AND IMPLEMENTED.

ISSUE #22B (CONT'D)

PROGRESS TO DATE

- SITE PROCEDURES WERE IMPLEMENTED THROUGHOUT THE CONSTRUCTION PHASE TO PRECLUDE THE NEED FOR REBAKING.
- REVIEWS OF ASME REQUIREMENTS FOR HOLDING TEMPERATURE INDICATES THAT SITE PROCEDURES ARE IN COMPLIANCE.
- SITE PROCEDURES DIFFER WITH RESPECT TO AWS D1.1 HOLDING TEMPERATURE REQUIREMENTS, BUT ARE CONSISTENT WITH AWS A5.1 WELDING MATERIAL SPECIFICATIONS. THESE CODE INCONSISTENCIES POSE NO DETRIMENTAL EFFECTS TO THE WELD ROD.

ISSUE #23

QA PROGRAM BREAKDOWN BETWEEN EBASCO & MERCURY

NRC DESCRIPTION OF CONCERN

- FOLLOWUP ON CORRECTIVE ACTIONS COMMITMENTS TO NRC
- AUDITING OF MERCURY QA PROGRAMS
- COMPLETION OF CORRECTIVE ACTIONS FROM AUDITS
- ROOT CAUSE DETERMINATION/CORRECTIVE ACTION ALLOWED PROBLEM TO PERSIST
- MANAGEMENT AUDIT CORRECTIVE ACTION

LP&L ACTION REQUIRED

- DETERMINE CAUSE OF BREAKDOWN
- ASSESS CORRECTIVE ACTION TO PREVENT RECURRENCE
- OVERALL QA PROGRAM ASSESSMENT

LP&L PLAN

- REVIEW CORRECTIVE ACTIONS FROM NRC ENFORCEMENT ACTION
- REVIEW EFFECTIVENESS OF QA AUDIT PROGRAM
- IDENTIFY LESSONS LEARNED FOR INCORPORATION INTO "COLLECTIVE SIGNIFICANCE"
- ASSESS RESPONSE TO MANAGEMENT AUDITS
- ASSESSMENT OF OVERALL QA PROGRAM - COLLECTIVE SIGNIFICANCE

COLLECTIVE SIGNIFICANCE

CATEGORIZATION OF 23 ISSUES AND SUBISSUES

- o TRAINING AND QUALIFICATION
- o RECORDS
- o PROCESS CONTROL
- o TECHNICAL

REVIEW OF OTHER PERTINENT ISSUES

ASSESSMENT OF COLLECTIVE SIGNIFICANCE ON PLANT CONFIGURATION AND HARDWARE

IDENTIFY LESSONS LEARNED

CORRELATE LESSONS LEARNED/CORRECTIVE ACTIONS IMPLEMENTED AND DEVELOP RECOMMENDED FUTURE ACTIONS FOR THE OPERATION QA PROGRAM

ISSUE #23 (CONT'D)

PROGRESS TO DATE

MERCURY CORRECTIVE ACTIONS BEING CONFIRMED AS TO IMPLEMENTATION AND ADEQUACY

LP&L/EBASCO/MERCURY AUDITS OF MERCURY HAVE BEEN REVIEWED, CORRECTIVE ACTIONS HAVE BEEN CONFIRMED

MANAGEMENT ASSESSMENT FINDINGS HAVE BEEN REVIEWED FOR CORRECTIVE ACTION IMPLEMENTATION

ISSUE #23 (CONT'D)

CORRECTIVE ACTIONS FROM NRC ENFORCEMENT ACTION

- MERCURY RETRAINING PROGRAM *
- REINSPECTION OF ALL SAFETY CLASS INSTALLATIONS *
- MERCURY ORGANIZATIONAL CHANGES
- INCREASE IN MERCURY QA/QC STAFF *
- EBASCO QA MANAGEMENT TEAM TO OVERSEE MERCURY
- INCREASE IN LP&L/EBASCO QA STAFF *
- ESTABLISHMENT OF EBASCO QA SURVEILLANCE * AND QUALITY ANALYSIS GROUPS
- ENLARGEMENT OF EBASCO QA RECORDS REVIEW GROUP *
- REDUCTION IN MERCURY WORK SCOPE
- PROCEDURAL CHANGES IMPLEMENTED
- RECORDS REVIEW ASSUMED BY EBASCO
- SCD/INSPECTION REPORT RESPONSIBILITIES SHIFTED TO LICENSING

* COMMITMENT TO NRC

ISSUE #23 (CONT'D)

CORRECTIVE ACTION REVIEW

SYSTEM BY SYSTEM REINSPECTION BY LP&L/EBASCO/MERCURY

- o APPROXIMATELY 90% OF INSTALLATIONS COMPLETED PRIOR TO STOPPING WORK
- o FOUR SYSTEMS INITALLY - EXPANDED TO ALL SYSTEMS
- o PROJECT DECISION TO STRUCTURE PROGRAM CONSISTENT WITH SEQUENCING OF SYSTEM TURNOVERS UNDER STARTUP PROGRAM
- o SCOPE OF REINSPECTION CENTERED ON TUBING, TUBE TRACK, SUPPORTS AND CONFIGURATION
- o CORRELATION OF OBSERVED DEFICIENCIES TO TIME PERIOD OF INSTALLATION

RECORDS REVIEW PROGRAM

- o REVIEW EFFORT EXPANDED
- o PRIORITY ON TUBING TO SUPPORT SEQUENCED TURNOVER PROGRAM
- o EBASCO INITIATED 100% REVIEW/RE-REVIEW

ADDITIONAL RE-INSPECTIONS

- o RE-INSPECTIONS PERFORMED AS A RESULT OF RECORD DEFICIENCIES
- o CURRENT REINSPECTION PROGRAM AS DISCUSSED IN ISSUE #1

AUDITS OF MERCURY QA PROGRAM

AUDIT SCHEDULE

- MERCURY CONDUCTED 75 INTERNAL AUDITS
- EBASCO CONDUCTED 100 AUDITS OF MERCURY
- LP&L CONDUCTED 85% OF SCHEDULED AUDITS (24) AND PERFORMED 13 SURVEILLANCES

CORRELATION OF AUDITS TO PROGRAM REQUIREMENTS

COMPLETION OF AUDIT CORRECTIVE ACTIONS

- MERCURY AUDIT FILES NOT ORGANIZED FOR EASE OF FOLLOWUP
- CORRECTIVE ACTIONS FOUND TO HAVE BEEN IMPLEMENTED

MANAGEMENT AUDITS

MANAGEMENT ASSESSMENTS DURING 1977 - 1980 TIME PERIOD

- IDENTIFIED ORGANIZATION AND STAFFING CONCERNS
- LP&L SLOW TO RESPOND

AUDIT OF PLANT TRAINING PROGRAM

- FINDINGS ADDRESSED IN TIMELY MANNER
- PLANT TRAINING STAFF AND PROGRAM REORGANIZED