OCT 26 1984

Docket Nos.: 50-445
and 50-446

APPLICANT: Texas Utilities Electric Company (TUEC)

FACILITY: Comanche Peak Steam Electric Station, Units 1 and 2

SUBJECT: SUMMARY OF MEETING TO DISCUSS THE APPLICANT'S PLAN FOR RESOLUTION OF REQUESTS FOR ADDITIONAL INFORMATION FROM THE COMANCHE PEAK TECHNICAL REVIEW TEAM (TRT) EFFORT DESCRIBED IN LETTER DATED SEPTEMBER 18, 1984.

On Friday, October 19, 1984, the staff and applicant representatives met to discuss the applicant's plan, submitted by letter dated October 8, 1984 (Mr. Spence to Mr. Eisenhut), for resolution of requests for additional information from the Comanche Peak Technical Review Team effort described in a September 18, 1984 letter and meeting relating to:

(1) Electrical and Instrumentation

(2) Civil/Structural, and

(3) Test Programs.

Because of a time constraint, the applicant was only able to complete the presentation of their program in the electrical and instrumentation area. A meeting to complete the two remaining areas was scheduled for Tuesday, October 23, 1984, a transcript will be available. In addition, the staff will be providing a letter to Texas Utilities with specific comments on the applicant's program following completion of their presentations.

A copy of the meeting notice and a list of persons present are enclosed (Enclosure 1 and 2, respectively). The meeting was transcribed and a copy of the slides used at the meeting is bound into the transcript (Enclosure 3). The meeting lasted approximately four hours.

/s/

Annette Vietti, Project Manager
Division of Licensing
Technical Review Team

Enclosures:
As stated

cc: See next page

CONCURRENCES:

DL:LB#1
AVietti:es
10/24/84

D:CP:DL
VNoonan
10/24/84

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PDR ADOCK 05000445
A PDR

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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Annette Vietti

Annette Vietti, Project Manager
Division of Licensing
Technical Review Team

Enclosures:
As stated

cc: See next page

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

OCT 11 1984

REVISION

Docket No.: 50-445

MEMORANDUM FOR: Darrell G. Eisenhut, Director
Office of Nuclear Reactor Regulation
Division of Licensing

FROM: Annette L. Vietti, Project Manager
Comanche Peak Technical Review Team
Division of Licensing

SUBJECT: TEXAS UTILITIES GENERATING COMPANY MEETING

DATE AND TIME: ~~Thursday~~ Friday, October ~~18~~ 19, 1984
~~1:00~~ p.m. - ~~5:00~~ p.m.
9:00 p.m. - 1:00 p.m.

LOCATION: P-118
Phillips Building
7920 Norfolk Avenue
Bethesda, Maryland

PURPOSE: To discuss the applicant's plan for resolution of open items from the Comanche Peak Technical Review Team review described in a September 18, 1984 letter relating to (1) electrical and instrumentation, (2) test program, and (3) civil/structural areas.

PARTICIPANTS: NRC Staff

D. Eisenhut, R. Martin, T. Ippolito, A. Vietti, R. Wessman, R. Tang, T. Novak, B. J. Youngblood, S. Burwell, J. Calvo, R. Keimig, L. Shao, D. Jeng, et. al.

Licensee/Applicant Staff: M. Spence, et. al.

Annette L. Vietti, Project Manager
Comanche Peak Review Team
Division of Licensing

~~Enclosure:~~
~~As stated~~

NOTE: This meeting will be transcribed

MEETING WITH TEXAS UTILITIES-PROGRAM PLAN OCTOBER 19, 1984

NRC

Annette Vietti
David C. Jeng
R. C. Tang
S. Burwell
C. Poslusny
B. J. Youngblood
John Kopeck
Ward F. Smith
A. R. Johnson
Richard Wessman
Joe Scinto
S. Treby
R. D. Martin
D. G. Eisenhut
Vincent S. Noonan
Jose A. Calvo
Larry Shao
R. R. Keimig
R. F. Heishman
D. R. Hunter
H. R. Denton
R. L. Bangart
C. H. Hofmayer

Dallas Morning News

Jim Landers

Dallas Times Herald

Jack Booth

CASE/GAP

Tom Carpenter
Billie Garde

TUGCO

Joe B. George
Lou Fikar
Michael Spence
B. R. Clements
J. W. Beck
Jack Redding
John Merritt
C. R. Hooton
Mike McBay
Tony Vega
R. E. Camp
N. S. Reynolds

TERA

J. C. Gilbert
Don Davis

Pane Webber

L. W. Epp

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

IN THE MATTER OF:

TUEC MEETING WITH NRC STAFF

LOCATION: BETHESDA, MARYLAND

DATE: OCTOBER 19, 1984

RECEIVED BY:_____ DATE:_____ TIME:_____

UNITED STATES OF AMERICA

- - -

NUCLEAR REGULATORY COMMISSION

- - -

TUEC Meeting with NRC Staff

- - -

Friday, October 19, 1984

- - -

The meeting convened at 9:00 a.m. in Room P-118, 7920 Norfolk Avenue, Bethesda, Maryland, Harold Denton, presiding.

PRESENT:

Harold Denton
Jose Calvo
Larry Shao
Richard R. Keimig
D. R. Hunter
R. F. Heishman
Jack Redding
John Beck
Billy Clements
Michael Spence
Lou Fikar
Joe George
Richard Bangart
R. Martin
Darrell Eisenhut
J. T. Merritt
L. M. Popplewell
C. R. Hooton
M. R. McBay
Anthony Vega
R. E. Camp

PRESENT:

Richard Wessman
J. C. Goubert
S. Treby
Vincent Noonan
R. E. Camp
Billie Garde

P R O C E E D I N G S

MR. DENTON: I am Harold Denton. I am Director of the Office of Nuclear Reactor Regulation. This is a meeting today between the NRC Staff and the management of the Comanche Peak project.

I wanted to be here to see part of your presentation, and also wanted to introduce Vince Noonann who replaces Tom Ippolito as the Program Manager for our Technical Review Team.

Maybe many of you know Vince from his previous jobs in the Commission, but he's a volunteer for this opportunity to finish the effort that Tom started.

We also have here today Bob Martin who recently became effective as a Regional Administrator of Region IV. He's responsible for directing the field inspection activities and coordinating with the program manager and to complete our technical view of this project.

We have a memo from the Executive Director of Operations that appoints this -- of this position, and they are available in the back of the room for anyone who wants a copy.

The Mechanical Review Team stays in place as it was under Tom, the team leader such as Larry Shahl and the staff under the team leader are all the same as they were.

We're still going ahead without Tom's benefit

but with Vince stepping in, and we'll put full-time effort on this project until it's completed.

The purpose of this meeting is to go over your response to the letter that Darrell Eisenhut sent you regarding the first findings from the Technical Review team. This is not intended today to be a decision-making meeting, but will allow you an opportunity to present your program to us.

Before I turn the meeting over to Darrell, it might be good to go around the room and introduce who is here so that we all know each other.

MR. HUNTER: I am Dorlan Hunter. I am in Region IV, Projects Branch 2. I will end up as it is set now with the Comanche Peak project for Operations -- for startup and operations.

MR. HEISFFMAN: I am Bob Heisffman representing the Office of Inspection and Endorsement.

MR. KEIMIG: Rick Keimig, Technical Review Team.

MR. SHAO: Larry Shao, Technical Review Team.

MR. CALVO: Jose Calvo, Technical Review Team.

MR. NOONON: My name is Vice Noonan. I am with the Project Director for Comanche Peak.

MR. EISENHUT: Darrell Eisenhut, Director of Licensing.

MR. MARTIN: Bob Martin.

MR. REDDING: I am Jack Redding. I am the

representative here for Texas Utilities Electric Company.

MR. BECK: John Beck, TUGCO, Manager of Licensing.

MR. CLEMENTS: Bill Clements, Vice President, Nuclear Operations, TUGCO.

MR. SPENCE: I am Mike Spence. I am President of TUGCO.

MR. FIKAR: I am Lou Fiker. I am Executive Vice President of TUGCO.

MR. GEORGE: I am Joel George. I am Vice President of TUGCO and the General Manager of the Comanche Peak Project.

MR. BANGART: Dick Bangart, Region IV.

MR. GEIBERT: John Geibert, TERA Corporation and working on this project with Texas Utilities.

MR. REYNOLDS: Nick Reynolds, counsel to TUGCO.

MR. MERRITT: John Merritt, Assistant Vice General Manager in charge of Engineering and Construction and start-up.

MR. HOOTON: Randy Hooton, Civil Structural Leader for the Comanche Peak Response Team.

MR. MC BAY: Mike May, Construction Manager.

MR. POPPLEWELL: Larry Popplewell, Electrical Engineering crew.

VEGA: Tony Vega. I am Site Insurance Manager at Comanche Peak.

MR. CAMP: Dick Camp, Startup Manager, Comanche Peak.

AUDIENCE MEMBER: Oscar -- of the Technical Review Team.

MR. BOOTH: Jack Booth, Dallas Times Herald.

MR. JOHNSON: Al Johnson, TRT.

MR. SMITH: Ward Smith, Technical Review Team.

MR. KOPECK: John Kopeck, OPA.

MR. WEISSMAN: Dick Weissman, Technical Review Team.

MR. SCINTO: Joe Scinto, NRC staff member.

MR. TREBY: S. Treby, ELD

MR. POSLUSNY: C. Poslusny, TRT.

MR. YOUNGBLOOD: Joe Youngblood --

MR. HOFMAYER: TRT.

MR. BURWELL: Licensing Plant 1 -- Licensing Branch 1.

MR. HOFMAYER: Technical Review team.

MS. TANG: R. C. Tang, TRT.

MR. VIETTI: Annette Vietti, Technical Review Team.

MR. HUTCHINSON: I am Ron Hutchinson with --

MR. DENTON: I am going to turn over to Darrell Eisenhut any other introductory comments, and then we'll turn the program over to --

MR. EISENHUT: Thanks, Harold Two items I

have mentioned before we go into your presentation. The first is when we had our meeting in connection with our letterof September 18 we went through in some detail explaining what we saw the technical issues to really be, that is the scope of the problem, in its technical arena.

When we asked for a program plan by our September 18 letter which you've replied to, one of the focuses and oneof the things that I have said we're going to be looking for is how are you going to manage and how are you going to handle the review of those items, just not to review them from a technical standpoint but the second aspect of it is rather to look at it from why should we have confidence this time around, any issues that may have slipped through the cracks, this time won't slip through the cracks.

Not to belabor it, but let me use an example with my staff some time ago. If an element of the staff has had endless problems that have been falling through the cracks, let's say, and then got identified that these problems have to be resolved, I am not sure I'd go back to the same person in charge and ask them to explain why the problem happened in the first time or explain and evaluate what the bounds of the problems are.

The point I am making is that while today we are looking at the issues and we'll be looking at your program plan from a technical standpoint, that is how you are

resolving the technical issues, there is clearly a second perhaps more fundamental issue that we're looking at, and it was mentioned in our September 18 letter, through asking for an indentification of the cause, how you are going to identify it.

We'll be looking to the process you use so to speak in resolving these issues and regaining the confidence that it is now thoroughly done and lastly, in identifying the root cause.

I just wanted to point that out as a key issue before we go into it. As Mr. Denton said, we are keeping a transcript. I ask everyone as they speak to identify themselves. I do intend that as soon as the transcript is available, I will serve it on all parties in the proceeding by board notification so everyone will be getting it at the same time when it's available.

With that I'll turn it over to Mr. Spence. I do understand that you have a presentation that you'd like to go through today. I requested the meeting as a vehicle to facilitate discussion on this program plan to give us a good understanding of what it is and give the staff an opportunity to ask you questions, drill you so to speak as we go through each piece of the elements.

With that, Mr. Spence, I'll turn it over.

MR. SPENCE: Darrell, thank you very much.

Ladies, gentlemen, good morning.

You have met our staff. We'll introduce each of the speakers again as they make their specific issue presentations. TUGCO appreciates the opportunity to have this meeting with you and your staff, Darrell, to review our plan to respond to the Technical Review Team issues that are being presented and will be presented subsequently, to recieve your questions, and any comments regarding our response plan and to provide to you today, to the extent that we can, in the format we've got set here, our clarifications and any answers that we may have to your specific questions.

Our overall objective for today's meeting is to reach agreement, hopefully with you and the staff on the specific issues, items and action plans that we've submitted in my letter to you of, I think it's October 8.

I want to emphasize at the outset our continuing first priority emphasis that TUGCO places on the satisfactory resolution and closure of all the issues coming out of the TRT, both those we have now and those that we may get in the future as the team completes its investigation.

You have a copy of our agenda for today, I believe. Our agenda has been designed to cover with you in some detail our program plan, overall, and the specific issue,action plans, addressing those issues already identified.

John Merritt will expand on that in a few minutes with his presentation. Before I turn the program over to John, I want to emphasize a couple of general aspects concerning our program plan.

First, I want to emphasize is this. I've assigned our most senior nuclear management and most knowledgeable members of our nuclear staff to this Comanche Peak response team.

That should be taken as an indication of the importance, the high level of importance that I and my company place on this matter.

I want to -- before we get into our presentation, briefly outline some of the specific responsibilities that I have assigned to TUGCO personnel in connection with this plan and also some of the significant roles that personnel outside of the TUGCO organization will be played in the carrying out of this response plan.

As a key component of the plan, I have established a senior review team which would report directly to me. It's accountable to me. Serving on that team are Mr. Fikar as Chairman of the Senior Review Team; Mr. Clements, Vice Chairman; Mr. George and John Beck, all of TUGCO.

In addition to our TUGCO management personnel I have also engaged services of Mr. John Bear who is Manager of Nuclear Safety and Licensing for Tera Corporation, to be

a full-time member of our Senior Review Team to bring an additional perspective to that effort.

The Senior Review Team has the primary responsibility for seeing that the action plan is comprehensive and fully responsive to the expressed concerns and for the responsibility for approving the plan.

The Senior Review Team will also be responsible for review and approval of all results of the Issues Specific Action Team Leaders.

A second aspect that I want to emphasize is that we have also established a special evaluation team in the QA/QC area of our response plan, which will consist entirely of personnel outside the TUCGO organization.

This Committee will be responsible for the review of all instances where we are unable to verify the qualifications of our QA/QC personnel in the issue that was identified.

In addition to that we are also using outside personnel, personnel outside the TUGCO nuclear organization to review, revise, as necessary, and to monitor our QA/QC inspector training program.

Tony Vega, in his specific issue presentation will comment further on the roles of these outside personnel.

Beyond that we intend to seek additional outside

assistance as we carry out our response plan where the need arises or should additional issues that are brought to us from the investigations of the Technical Review Team indicate that the use of such outside perspective would be beneficial and appropriate to our effort.

With that John Merritt, our Program Manager for the Comanche Peak response team will begin our presentation.

MR. MERRITT: Has everyone got a copy of the agenda or the program? Jack, if you will help pass that around, please.

Good morning ladies and gentlemen. My name is John Merritt as I've indicated to you earlier. Shortly after we received the TRT questions in September. Mike Spence appointed me as Project Manager of the Comanche Peak Response Team which is the complement of the TRT at Comanche Peak.

This morning briefly I will have my organization, directors, talking to you on the specific items. Mr. Larry Popplewell will be discussing the electrical. Randy Hooton will be discussing the civil structural in conjunction with Mr. Mike McBay.

Mr. Vega will be addressing the QC as it pertains to the electrical issues, and Mr. Camp will be addressing the startup issues.

MR. DENTON: Could you tell me what your previous

role was?

MR. MERRITT: Previously -- if you speak up.

MR. DENTON: What was your previous assignments on this project?

MR. MERRITT: Okay. I arrived at Comanche Peak in June of 1977 as Construction Manager. From there I moved into Manager of Engineering and Construction in '81.

In late '82 I was responsible for the Startup program and then in late '83 I assumed the role of Engineering Construction and Startup.

I have had roughly ten years with the company as we've performed work on fossil fire plants prior to that.

This morning I intend to provide a brief overview of the program plan that is before you gentlemen, hitting on the highlights, as we see it, with the program plan, itself.

I will be addressing initially the first two fundamental functions, that being the formation of the organization and organizational structure as well as the personnel qualifications required to be a member of the CPR team.

MR. EISENHUT: John, let me ask you a question pondering your answer to Harold's question. Under your previous responsibilities as manager of construction, etc. -- did QA report to you?

MR. MERRITT: No, sir.

MR. EISENHUT: So you say that it was -- when you say construction you really mean construction?

MR. MERRITT: I mean construction.

MR. EISENHUT: Like in the field of --

MR. MERRITT: The field, construction, the building, and in particular at Comanche Peak, Brown & Root -- general contractor -- Brown & Root reporting to me. The QA/QC program reports ultimately to Mr. Dave Chapman and Mr. Bill Clements, Tony Vega performing the role of the site QC manager.

MR. EISENHUT: And then the next question was at what point in the company did construction and QA responsibility come together and go with the last five years, eight years, whatever the plans of construction -- where did the two come together.

MR. MERRITT: Came all the way to the present.

MR. EISENHUT: Came all the way to the present?

MR. SPENCE: QA reports up through -- to the Clements tree of our organization chart, construction up through to -- the two don't come together till --

It has been that way, I guess, for ever.

MR. MERRITT: In setting up the organizational structure, we were impressed with the TRT structure and formulated our structure, basically along the same line as the TRT. After agreeing on the organization structure with

the senior review committee. then we established the requirements for the individual budget review team leaders.

Basically those requirements entail lengthy and detailed experience in the field in which they are representing or on the CPRT; management experience so that they have the capability of working across the organizational fronts at Comanche Peak in pursuing problems, demonstrated ability to make decisions, hard decisions as well as managers that are familiar with the Comanche Peak program and what is required in that program.

On completion of selection of the program team leads, then we address the issue of pointing or determining the issue coordinators. The fundamental criteria with the issue coordinators was detailed and lengthy experience in the area in which they are working, independence to the maximum possible extent from the issue in question in which they are working, as well as training and familiarity with the procedures at Comanche Peak under which they will be working.

At this time I would like to highlight some of the key items on the summary of the program process.

MR. SHAO: I have a general question. To what extent do you intend to use technical consult from each discipline?

MR. MERRITT: From the standpoint of technical

counsel --

MR. SHAO: Consultants from outside -- technical experts in the disciplines.

MR. MERRITT: As necessary in reviewing the items of coure -- Gibson Hill is our primary AE at Comanche Peak. We have Westinghouse on the site with technical people that we will be calling upon in those particular cases.

Also in the testing program we have Westinghouse personnel infused into that operation. In several specific areas we will be using Ebasco in some of the technical issues which is also on the job site.

MR. SHAO: Are these people originally involved in the project or are you going to use somebody not originally involved in the project?

MR. MERRITT: Some are and some are not. Some have been involved in the process but by-and-large we are attempting to use people that were not intimately involved in the particular question in fact.

MR. NOONON: As these people present the details of the program they'll point out the outside consultants they'll be using.

MR. SHAO: But so far I don't see any means yet.

MR. NOONON: They'll point them out in their presentation.

MR. MERRITT: As far as detailed personnel and

the companies that are represented, let me do reference to this.

In the detailed program plan found in your book, there are the names of the primary people and the companies if they are other than Texas utilities.

Found in the appendix of the program plan is what is called the Summary of the Program Process. Once we had set up an organizational structure we then attempted to highlight the major areas or points along the implementation process that we needed to pay particular attention to.

At this point in time I would say all plans have moved to Item 7 which is implementation of action plans. Those will be discussed in further detail by each one of the plan presentors.

Continuing on with the summary of the program process, we put early on in the program the identification as much as possible of the root cause in particular generic implications.

We did this from the standpoint of alerting all of our managers to keep a very sharp eye or keep atuned to the fact of identifying the root cause so that we could validate or substantiate our assumptions that we had used in developing the action plan, and where those assumptions were inappropriate, then we could modify the action plan accordingly.

Also, from the standpoint of identifying the generic implications, if the action plan needed to be expanded we could move to the expansion of that action plan as rapidly as possible.

MR. NOONAN: I wonder if I could briefly comment on that. Going through supports here in the last few days, it seems to me that it would cause some generic implications -- not really well defined in all areas. Maybe as you go through this presentation you could tell us where these things are identified.

We could not -- our own staff could not identify them for every section.

MR. MERRITT: At this point in time when we submitted or when we submitted the plan, all of the root causes or generic implications had not been identified. It was basically the program per se.

As we are moving forward we are attempting to identify those and modify the programs accordingly. Now I will address that at this point with item number 11.

After we have submitted the program and I believe that was about a week-and-a-half or ten days ago, we have already identified some of our assumptions are in the action plan to have changed and as such, we're already in the process of revising those action plans accordingly which will also include modifications to the root cause or generic

implications. We will be submitting those revisions to you in the immediate near future as they are identified today.

Some of the few members will be discussing those with you. Finally, the summary of the program process concludes with the final submittal of the report to the NRC.

As I've indicated before the entire process is identified in the appendix to the plan.

MR. SHAO: To what extent do you intend to provide any independent verification in certain areas?

MR. MERRITT: In certain areas and again it goes back to the individual program process, itself, the individual team members will be identifying where they are using what I would call outside entities or entities other than those found on the job site on a plan-by-plan basis.

Each plan has -- is unique unto itself and will have certain outside participation as we feel like it is being necessary.

MR. SHAO: But you -- on every area -- you have different criteria.

MR. MERRITT: We have certain criteria, that is correct, that are being reviewed and implemented by the individual program or team managers, that is correct, if I understand your question.

MR. SHAO: My thinking is if not every area you can -- you have to do independent verification, but certain

areas you have to do it.

MR. MERRITT: That is correct.

MR. SHAO: In order to conduct the program you have to have criteria. Certain areas -- if you have present problems you have to do independent verification. Certain areas you do not have to do independent verification.

MR. MERRITT: As we move through the program process we will be identifying that criteria, yes.

MR. SHAO: So that has not been identified yet?

MR. MERRITT: At the time of submittal of the plan, it had not been identified, no, sir.

MR. DENTON: I think what Larry is getting at is the most effective way to put some of these things to bed would be direct physical measurement verification, say as opposed to paper surge, and if the question is over configuration or material bigness, go back and measure it or -- is that your intent?

MR. MERRITT: In each one of the program managers we'll be addressing that. We do have in certain cases and I will be talking on that in a minute -- the aspects of the program which, in many cases, move beyond just a review of paperwork.

Yes, sir, we are going back into the field, and I am going to talk on that in just a minute, but that then will break down on an individual plan basis on specifically

what will be done. Some cases, a paper review. Some cases, additional inspection, some cases additional engineering and some cases, rework, but I'll talk on that in just a minute if that is the question you're asking.

MR. DENTON: Let me ask another policy question. This review is somewhat unique in that we've got adjudicatory proceedings running along that is considering many of the same issues, and many of the people that the PEPCO review team has interviewed have also appeared before the Board.

Both in close camera sessions and in open sessions, did your review team be made aware of the information that has also been brought out before the Board on these same issues, or are you restricting it just to the letter from Eisenhut, for example, because many of these may have had its genesis in people who appeared before the Board and then ultimately we talked to them and did the review.

How are you assuring that you've got the full -- the scope of the concern, and what I am really asking is do your team members -- are your team members aware of what is going on in the legal proceedings?

MR. SPENCE: Harold, let me answer that one in two parts. Our senior review team identified -- we've got the overall policy direction and approval responsibility coming from the Response Team.

They're keeping themselves very currently aware

of all of the issues in testimony before them on related matters. And through their involvement in the ASLB process, knowledge of issues and testimony -- make sure that the individual efforts on these specific action plans and the management of those are also aware of the parallel nature of the issues between TRT and ASLB issues.

A second comment I'd make on that is that the point you raise is indicative of the reason for it and the benefit of having people who have familiar knowledge from their experience over site, involved in the addressing of the resolution of these issues so that they'll have a complete awareness not only of the particular physical attributes of the issue raised by the CRT but also the peripheral issues that are being litigated in connection with that same matter, perhaps at the ASLB.

MR. DENTON: It does seem uniqie in that regard in that the issues are closely intertwined in some cases with what's being under actual adjudication.

MR. EISENHUT: Harold, if I could follow up on that, it is not necessarily clear that if the senior review team which -- if you'd look at it from a senior management standpoint, may very well not be as attuned to the significance of what they hear in the detailed testimony of the hearing as the reviewer doing the work would be.

While I clearly respect -- there are the pros and

cons going one way or the other, at the same time it would seem that there may well be a benefit to having people in charge of resolving an issue familiar with the detailed testimony in the hearing and not just the testimony of the hearing, but CAT reports, routine inspection reports, so that everything that exists on a particular issue, it would seem to be -- you know, I've given you an analogy.

If Harold Denton or Darrel Eisenhut lead a detailed inspection report on cable splices in the back of a cabinet in a control room, things can clearly go past us, but if a detailed reviewer who really understands what the standards are, what the codes are, what the construction practice is, different things may completely leap out of him than would leap out of us.

MR. SPENCE: I guess a good example of our organizational structure addressing what you've said is Tony Baker's role. Tony is very active in the Comanche Peak response team effort as a program leader, and I think you're familiar with the roles that he has played also on parallel issues before the ASLB.

There is an example of a direct linkup between the two parallel activities at a level of our response team organization well below the senior review team unit.

I think that is what you are --

MR. EISENHUT: Right.

MR. DENTON: We envision our effort to be sufficient to resolve this issue if it's also before the Board, and, therefore, we intend to stay current with whatever is going on before the Board issues, and that might color our evaluation of your activities, and I think it would behoove all of us to keep in touch as there are these two proceedings, one in record and one off record that have to be closely tied together where there's mutual issues before the two, and that we not attempt to resolve the technical issue and forget about some new aspect or twist that has been brought up in the other proceeding.

MR. EISENHUT: There's one other twist to that, too, and that is a number of the pieces of information have come up in the hearing through either confidential sources or through being heard in camera sessions. Certainly the utilities counsel was present at those meetings and certainly there are agreements that have been signed protecting the information.

Is there any length for the technical information that is taken care of in the hearing process in closed session? Counsel, better listen to this thing.

Is there any link whereby the technical merits that come up can get back to the management so that the management -- whoever is responsible for evaluating this thing hears the information?

I mean there is a distinct possibility that in a closed session of a hearing is where the vital critical technical pieces of information come up, but you could have a program that is moving along at full speed that just doesn't have the benefit of that at all.

Is there any -- have you folks taken any steps of at least some senior management whatever disclosures -- whatever the appropriate language is, to get that information so that there's at least a link in its connection with the program?

MR. SPENCE: The answer is yes, and I --

MR. EISENHUT: Can you elaborate a little bit more?

MR. SPENCE: I think the term is protective order.

MR. EISENHUT: Right.

MR. SPENCE: Darrell, I believe the only in camera technical testimony before the ASLB has been the witness F testimony.

MR. EISENHUT: All right. Is that the only one?

MR. SPENCE: That's the only one that I know of and it's the only one my counsel knows of, too.

I use that as just a general description of the family of issues. In that particular case a number of our key senior management people including Mr. Clements who has

the overall responsibility for startup and QA to senior management level, was a party to a protection agreement which allowed him to be privy to that testimony as was Mr. Vega and, I believe, in that particular case, Mr. Chapman. Is that right?

There may have been others but I know those are our three most senior QA managers, and they were all allowed by that protective order to access to that in camera testimony.

MR. DENTON: We've had a number of key counsel come into this meeting since we began. Stuart Treby, maybe you should identify yourself and anyone else that joined us after we went around the room.

MR. TREBY: Well, I think I did indicate earlier but my name is Stuart Treby. I am the assistant to the hearing counsel for the NRC staff and have been involved in the proceedings that are placed before the hearing board.

MR. COMER: (Inaudible statement from the floor.)

MR. CRISTENBERRY: I am chief hearing counsel.

MR CARDEN: Tom Carden, also with (inaudible statement from floor.)

MR. DENTON: Thank you. We're going to attempt on our side to stay closely attuned to what is happening before the Board, what the issues are that are similar.

Would you hazard a guess as to the extent of

any tie between your program and issues that are before the Board?

MR. SPENCE: I don't know -- I am not sure what kind of answer you want.

MR. DENTON : Characterization -- half these things also pending before the Board? How would you --

MR. SPENCE: I have attempted in my own mind to sort them out into those -- into that kind of relationship. Counsel reminds me that the Board has taken the position that they intend to look into the TRT issues and all the TRT issues and that we don't necessarily agree that that is proper, but we do realize that where there are common issues in both TRT and before the Board, that that may be required that we haven't yet attempted to sort out the issue that you've given us thus far into a relationship that are directly or in some way tied to issues currently before -- specific issues currently before the Board.

We can do that.

MR. DENTON: I don't need any better characterization. I just wanted to make the point that there is a broad intertie in your program as well as ours that should take account of all the information that bears on these issues when we go to resolve them.

MR. SPENCE: That is a point well taken, sir.

MR. MERRITT: Mr. Denton, to get back to one of

your earlier questions under types of activity. Again within each action plan the action plan will be structured around the needs of that plan to address certain additional work activities or programmatic types of things.

For instance, if the program plan deems it necesary, we will perform additional documentation review. As necessary we will perform reinspection. As necessary we will perform additional engineering calculation. If required we will perform additional testing.

In some cases if it seems the most prudent thing to do in order to resolve the issues, we may even have some construction rework, but each one of those will be addressed in the individual action plan, itself.

Briefly in wrapping up the last two items there is a couple of the plans that are approached on a phase review process, phased from the standpoint that at the end of one or more phases we will consider where we stand with information in hand and from there make a decision on the implementation of the next phase.

That also will ultimately be reflected in the schedules that we are presently developing for this effort.

MR. DENTON: Do you have any schedule you care to share with us assuming you kick off the program in the near future?

MR. MERRITT: From the information we have at hand

and it is still being reviewed as I've told you. We have presented to you the overall action plans and we are into the implementation phase of it. We are basically seeing the conclusion of the first TRT report, the issues in the first TRT report coming to a conclusion anywhere from the middle to the latter part of December depending upon each individual action plan per se.

MR. FIKAR: Let me interrupt one minute. Harold, that also depends on what input we get from you all so it is kind of -- we've got to be working in that -- after this session we'll probably have some better idea and then when we get the issues and mechanicals we'll have a little more.

Right now it is kind of --

MR. DENTON: I think the intent of the tech review team is to provide you with a letter on all of the remaining activities before the end of November. Is that the --

MR. EISENHUT: That's what we understood.

MR. SPENCE: The divisional schedule is November 1. Is that up in the air --

MR. EISENHUT: Up in the air pretty much. Well, it is not really up in the air with the change of management. It's up in in the air, I think, more with the recognition ofthe detailed process of where we are. Our commtiment is as soon as we identify a block of issues, we'll get those to you.

We've said the last issue of our schedule is the QA/QC issues and our target for those would be the latter part of November with that particular set. That is what it looks like to me.

MR. SPENCE: In the interim we would have to receive whatever issues that can fall out of the other.

MR. EISENHUT: As they completed we would be -- as we identify areas where we believe additional work on your part is necessary, we would be getting those to you as they come along certainly just as we did in the September --

MR. [illegible]NTON: Could maybe Vance or you or the individual specialty leaders bring us up to date as to what you've done at the site since the last meeting? Are there any more site reviews going on or are they essentially completed?

MR. CALVO: In the electrical group everything iscompleted.

MR. NOONAN: Let me address it very quickly. I have not yet sat down with all the team leaders and addressed that particular aspect. We'll do that later this afternoon and by Monday I'll have a handle on that.

If the team leaders, themselves, want to answer that, go ahead and do it.

MR. CALVO: As far as the electrical instrumentation, all the inspection on site has been completed, and

we are in the process of finalizing the supplement safey issues reported -- they probably can be available to everybody in a week or week-and-a-half.

MR. DENTON: I thought sinde we were on schedule it might be good if you knew where we were going in areas that remain to be transmitted.

MR. SHAO: See, in the structure area we are -- with permission we give out the letters. In the mechanic area we finish all the site work, and I don't know what the open issue is.

Essentially we're done.

MR. SPENCE: Larry, that was in the mechanical area?

MR. SHAO: Mechanical area, yes. See, I am in charge of civil mechanics.

MR. EISENHUT: We should put a qualifier on that though so no one jumps to too hasty of a conclusion. While the work that we originally laid out on the site is clearly done, I mean we've gone through the process and most areas with eight to ten weeks on the site, we may very well have additional followup activities as we continue to evaluate issues with the ledgers, as we see your responses to issues so there may very well be additional work going back to the site.

The initial round of -- as we laid it out on the

site, I wrapped up, I think, last week.

MR. MR. CALVO: I think that hopefully we have finished, for instance, in the electrical discipline, there are some programmatic aspects of the electrical issues that have to be coordinated with the QA/QC that -- so that when they look at the overall programmatic impact of the issue, they might have to go back to us and they have to do something else.

That is reflected in the -- to indicate that before this work needs to be done in this area. The integrated approach has not yet been properly coordinated with all of the disciplines at this time.

MR. SPENCE: A question for Larry or Darrell, either one. If your initial site work is not completed in the camp area -- does that indicate -- should I take that to mean that whatever issues you may have identified that would not require action by us will be forthcoming shortly on that?

MR. EISENHUT: I would expect those issues to be identified in the near future, but it is a matter of writing down, you know --

MR. SHAO: That is the one thing we should talk about is whether we should -- the ledgers, the --

MR. NOONAN: The one thing I am doing right now -- I want to make sure in its process that all concerns

identified by any people that have given us concern, I want to make sure that those concerns have been adequately addressed and that we originally contacted the people that made these concerns and show them what our resolutions are.

I am looking at that right now, and I have a schedule on my desk and I'll have something on that probably by Monday.

MR. SPENCE: Darrell, you mentioned the responsibility or maybe the likelihood of followup by these functional teams. After they complete their initial thrust on -- would that be aimed at looking further into issues they had already been addressing or are you indicating there may be new issues?

MR. EISENHUT: Well, it could be some of both but I think, Jose, you've got to remember the process, and Jose pointed out pretty clearly. If you evaluate, let's say five big technical areas, you find problems in the electrical. You may find electrical problems, questions, themselves,and you evaluate those individually, but then there is the more generic implications of what does this mean to the overall arena of QA/QC and that is why we have the last group is QA/QC and all of the first pieces have an input to that.

What you see and what it tells you -- may send you back to do some more work. We are going to continue to

--other discussions we have had with the ledgers -- we are going to continue to be looking at the process.

Remember though that TRT by design, when we laid it out -- it was an overall evaluation. It wasn't to evaluate a hearing issue or a particular allegation or a particular technical question. It was to go over and reverify the overall competence of an area.

It encompassed all of the other things. We tried to do that by design so when we're looking at it, I mean you could come forth and tell us if you'd concluded the root cause to a problem was whatever, and that could well drive us back to look some more.

I think it is largely -- we're going to have to see the rest of the results coming out of the individual three or four groups. We're going to have to look at your programs, see the work and the results you're coming up with and factor it all together.

We're going to -- as I said, continue to have discussions with the ledgers. We want to make sure we follow-up to the best we can to understand everyone's concern as thoroughly as we can.

MR. DENTON: My comment just restricted to the initial scope as it might seem, not as a piece unfolding --

MR. EISENHUT: Right.

MR. DENTON: -- new information -- I thought it

would be useful to get out on the table where the effort as conceived to be necessary by Tom months ago -- not what likely still occurred.

MR. SHAO: I'd like to make a point. Even though the mechanical area is ready to talk to you, the mechanical and QA/QC are very closely related. I don't think it's a good idea to have a meeting on mechanical and later on QA/QC that are all overlapping.

They're very closely related, so our problem is QA/QC also, so I think we should talk to the QA/QC people before we go ahead with the meeting.

MR. SPENCE: Well, in our September 18 meeting we had several statistical numbers that were used concerning the number of allegations in these various functional areas. I recall it was in the 500 range total and the first September 18 report addressed maybe 20 percent of those.

MR. DENTON: Well, let's keep going so at least you understand where the team members stood in the various disciplines as --

MR. KEIMIS: In a testing program area of the onsite work that's been completed and finalizing the SSER, we have the same problems --

MR. FIKAR: What about codings?

MR. KEIMIG: Yes, codings on --

MR. WEISSMAN: Well, let me comment for both the petroleums and the QA activities because we didn't ask those who were familiar to be present today on the subject of their discussion.

Again, both the codings and the QA groups have finished their onsite work, and they are in the process of finalizing their SSER evaluation. The last of those obviously is QA -- again, I think that with respect to the codings variance, we're prepared to share information with the members and hopefully QA will fall out very shortly at that point as well.

MR. EISENHUT: Well, I don't want to take too much time right now though to specific schedules and specific items. The point Harold was making was the original schedules of where we --

MR. DENTON: Let's see if we can get a summarization of the various groups. How about QA?

MR. EISENHUT: Well, that was -- Dick was speaking of QA.

MR. BANGART: Region IV had some subset of miscellaneous allegations sent to us for completion and then we're also -- completed all the field work and have all the right ups finalized for management review of section one at this point in time.

MR. DENTON: I think our intent is once an area

feels they can productively come to some conclusions in an area, that will be transmitted to you without waiting any particular date so just as soon as a group feels that they have coherently reviewed an area, that will be subject to a meeting.

I think though that we are projecting -- this may take as long as the end of November to complete all of the tasks that are now invented.

I mention it because it ties into what your schedules are, and how your programs can proceed. Do you want to come back now to what you're doing on the original?

MR. SPECE: Before we get off that general subject, back to the question I was in the process of phrasing a moment ago.

The current effort by each of the functional groups in their particular status of completion at the time is based on, as I understand it, the issues that Mr. Eppolito and the technical review team have had in their possession during the process, during July, August and September.

I guess my concerns go to the question of as the electrical, for example, completes their work on the issues before them, how do you -- what is your strategy and how do you plan to handle late-minute, last-minute allegations that may come back into a group that is already complete

that would keep this from becoming a never-ending process?

MR. DENTON: I think we apply the same approach we've done at other plants such as the Diablo Canyon plant. They have to be looked at but we would take that site and look at them.

MR. EISENHUT: I don't know if you're familiar with -- that's the same approach we used at Diablo -- I think Diablo Calloway was the last one.

MR. CALVO: You certainly have the benefit of how the contents of our safety reports have. Now when this is ready it will be made available to you and to the public, and I think you will determine how we have bound present and future allegations, how we have done our sampling over the significance of it.

When new allegations come up we will forward copies -- the investigation being done,and these -- well, said -- well, we have done this before and it looks like it's within the ballpark of what we have done.

Now once you understand that, I think if you can tune up the action plan, okay, that is something that you're missing in the action plans. You don't know -- you know the results but you don't know why -- what was the basis of the results, what part you took from there and that is a part you were missing. There were so many questions not only from you but also from the public.

Why did you come up to this one. I think that would be the key one, and we're hoping that we can give this to you today because I think it will answer all kinds of questions.

MR. DENTON: We have proposed the Commission to follow the Diablo Canyon practice and all practice with regard to late allegations and it's spelled out in, I think, SR22 on Diablo Canyon -- the process we go through. We look at them all and then the criteria about which we use to decide whether it is one that will prevent an action or not or --

MR. SPENCE: In fact, that would -- last-minute allegations after we have provided action plans that are satisfactory to resolve the issues already identified -- would from that point on, any last-minute allegations if I am hearing what you're saying would be aimed at balancing safety implications of those late allegations against the information that is already provided and the need to complete the review.

MR. DENTON: Well, I wouldn't say balancing. I am trying to decide if the safety implications raised new significant issues that have not been previously considered. I think that is really the heart of the approach is that if it is an allegation in an area that has been looked at hard, and we have some basis for judging it, then we're comfortable

making a judgment. If it raises an issue in an area where there's really no inspection history, no technical review and we don't know how to proceed on it, then we may have to pause until that area can be looked into.

I think that is an issue we'll cross when we get there. Hopefully, we'll know all of the allegations long before we get to the end of this process.

MR. MERRITT: In conclusion with my portion of the presentation I would briefly reference the fact that we will be doing sampling on certain of those activities where we believe sampling is justified, and I am talking about from the standpoint of the activities referenced earlier on additional record review, additional inspection, additional calculation, et cetera.

The sampling techniques we will be using will meet the requirements under mil-standard 105D, and we will be using that and we'll briefly touch on that in one or two of our discussions here this morning.

MR. WESSMAN: John, will your presentors clarify for your standpoint and perhaps a lesser sample than what we have requested in our September 18 letter?

MR. MERRITT: Yes, sir, we will be touching on that also in the presentation this morning.

Let me begin the detailed programmatic discussion here with again when we made introduction most of our people

are setting over in the corner here, and they gave their job titles but I would like to briefly go through and if you will hold your hand up.

Larry Popplewell is responsible for the electrical instrumentation effort. Tony Vega is responsible for the QA/QC effort. Randy Hooten is responsible for civil structural and will be assisted on a couple of items by Mr. McBay and finally Mr. Camp will address the testing area.

With your concurrence we would propose to go throughthe discussion this morning in the sequence as outlined on the screen here. If you had preferred any other sequence, we will entertain that also.

MR. DENTON: I'll have to leave before 11:15 so if you wanted to -- I'll stay for the most important part, and if you think you've got it that way that is fine.

MR. FIKAR: Well, do you have any particular -- you would like to make sure you hear, Harold? We can rearrange these.

MR. DENTON: Let me ask -- Darrell, do you think --

MR. FIKAR: We're just using the order the way they were in the letter, but if Harold wants to hear about the ceiling and not about electrical, we can --

MR. EISENHUT: Can I make a suggestion? We can talk about the QA/QC area first since that clearly is going to be a vital piece in my mind, and if I could ask you -- one

of the things I would like for you to discuss is how you chose these people, what the qualifications were, how you are sure they were not involved before to the point where -- and certainly I don't know most of these individuals so I am not particularly picking on these people, but how do you know they weren't involved before and how do you know they were not part of the problem to start with?

MR. FIKAR: We'll address that.

MR. EISENHUT: That is the key thing that you have to build in in the front end of the program.

MR. FIKAR: That will come out in the presentation.

MR. EISENHUT: Good. Good.

MR. MERRITT: Why don't we start with Tony.

After Tony is there any preference from there? All right.

MR. VEGA: Ladies and gentleman, good morning.

MR. CLEMENTS: Tony, before you get started, maybe Mr. Eisenhut would like me to address why I thought that Tony was a good man to have for this issue team leader.

Tony has only been the the QA manager at the site since March --

MR. VEGA: March 16.

MR. CLEMENTS: March 16 and so although he's familiar with the QA/QC program of TUGCO and has been

involved only as -- responsible for the audit teams that went down, I felt that he was independent enough of the efforts over the past ten years that made him available to act as the issue team leader.

So he really had two qualifications. One, he is very familiar with what has been going on at the site from an -- over from an auditing viewpoint and at the same time he knows our QA program and he was not involved over the nine years in previous positions.

MR. EISENHUT: Let me ask you, where you were involved -- where you were before the nine years or during this nine years -- where were you in the organization, I guess, and what is your background?

MR. VEGA: As far as background I have a degree in electrical engineering. I am a registered professional engineer in the State of Texas. I have a background of fire plant design, primarily power systems, supervisory and control systems.

I came to Quality Assurance in 1973. At that time I started in the Quality Assurance organization as a staff member in the staff -- manager -- was involved in formulating the PSAR, the initial program of procedures.

Subsequent to that I became involved in the audit function of the architect engineer, the vendors, site activities, testing and operations. That is primarily my

background prior to coming to Comanche.

MR. DENTON: Has TUGCO encouraged you to participate in the various professional activities and quality assurance and quality control?

MR. VEGA: As far as participation in the industry?

MR. DENTON: I know there are various standards and professional societies. To what extent have you been involvedin -- there's been a seemingly -- a change in the way the agency approaches quality assurance over the time that you've been involved from 1973 to today.

Are you -- do you participate in the various standard organizations that -- I've forgotten their name, but --

MR. VEGA: The NSC standards --

MR. DENTON: -- the NSC standards for quality assurance and quality control programs?

MR. VEGA: Yes. We have been active through several industry organizations. In my previous position, as a matter of fact, I was involved in reviewing proposed standards, commenting on them. We are active members of the Edison Electric Institute UA Committee.

We meet twice a year and, of course, communicate a lot more often on the types of problems that are being identified in the industry, the solutions. We do everything we can to stay abreast of not only the regulations or

changes, but also the things that are happening at other plants with the primary interest of precluding them on our project.

MR. CLEMENTS: We're also a member of JUMA, the Joint Utility Management Audit that goes around, within the utility industry, audit other management groups -- other utility management groups so I think that is a big help to us, Darrell, also.

MR. VEGA: We're also members of the ASBC organization. We send representatives to meetings and then they come back and share what was discussed with the rest of the organization.

MR. DENTON: Has your existing program been audited by IMPO in their -- they have a pilot program to look at construction adequately. Have you participated in activities --

MR. CLEMENTS: We've had the original self-audit and sent back the results of that audit into -- they're due to make their first info audit of our construction, I believe, in March or April of '85.

MR. SPENCE: Let me clarify that. He said self-audit -- self-initiated audit --

MR. CLEMENTS: Yes, that is it.

MR. SPENCE: -- using info criteria. Actually we had a consulting -- they conducted the audit. We didn't

audit ourselves but we initiated it under the info program.

MR. VEGA: I would like to discuss with you item 1D1 on the subject of QC inspector qualifications. The item, the TRD as a result of their assessment concluded that there was three -- that there were some concerns in the area of QC inspector qualifications as follows:

There was a lack of supportive documentation regarding personnel qualifications and the training and certification files for the electrical QC inspectors. There was a lack of documentation for assuring that the requirement for electrical QC inspector certifications were being met.

In expressing those concerns, the TRT identified five specific examples. Based on the observation the TRT proposed certain actions as follows: that each team should review all electrical QC inspector training, qualification, certification and recertification files against project requirement, and if EUEC provide information in such a form that it could be clearly demonstrated that each inspector had met all of the requirements that apply to their certification.

The TRT also specified that if an inspector did not meet the requirements that TUEC should review the records to determine the adequacy of the inspection and assess the impact on the safety of the project.

In addition to having made the comment specific

to the electrical QC discipline, the TRT expressed a statement that the identified deficiencies has generic implications through other construction QC disciplines.

Prior to going into the discussion of the action plan I would like to cover some of the pertinent background in the area of inspector QC training.

First of all, Comanche Peak was docketed without a commitment to regulatory guide 1.58 and ANSI N45.2.6. Accordingly, our initial training progress addressed the applicable requirements of 10C, part 50, appendix B.

Our commitment to ANSI N45.2.6 and regulatory guide 15Awas made in 1981. Accordingly, we changed our procedures to address those particular items specifically. It would be appropriate to point out that the ASME inspectors at Comanche Peak are certified under a totally separate program.

This program is in compliance with the requirements of the ASME and they have the -- the records have been reviewed independently by the ASME authorized nuclear inspector that is provided by the Hartford Steam Boiler Insurance Agency.

MR. DENTON: Let me understand something there. Do you have your own ASME code stamp within TUGCO?

MR. VEGA: No, sir.

MR. DENTON: So you are talking about something

else then? You are -- your program has not been audited by the ASME and you are not the holder then of a -- what is itcalled -- instamp but --

MR. VEGA: But Braun and Root has been.

This is a Braun and Root program. Braun and Root has a stamp and the ASME has audited this program and it is continuously overseen on a day-to-day basis by the 11 ANIs that are residents on site.

MR. DENTON: So TUGCO, itself, is not the possessor of instamp technicians --

MR. VEGA: That is correct.

MR. DENTON: Some utilities have -- do you plan to--

MR. FIKAR: We plan to get one, Harold. We just haven't had a chance.

MR. DENTON: I see.

MR. CLEMENTS: At this particular time we're not working on toward getting one. I want to make that -- before we make nuclear units -- if ever.

MR. VEGA: I would like to point out a very important point relevant to our inspector certification program. It is standard practice in the industry to certify inspectors to disciplines, electrical, mechanical, civil, INC.

Our program is a very conservative program and

unique in that we certify our inspectors with specific instructions and specific procedures. This is a very important point because before we certify an inspector we make sure that he passes an examination and OGT and classroom training, on that specific instruction so that we certify level I to a specific instruction.

This makes our program a very conservative program. Of course, we generate a lot of paperwork, a lot of paperwork, but we find that it serves our purposes quite well.

We reviewed the specific examples cited by the NRC, TRT and our review indicates that the specific examples cited by the TRT did meet the project requirements.

MR. CALVO: -- requirements -- did you conclude that whatever the TRT found out was not correct?

MR. VEGA: We found out that in some cases the documentation that was cited as not being there was there. In other cases we determined that the item identified had -- was not a requirement, and I can go into some details. The details are included in the writeup.

MR. CALVO: I know but these usually tended to be trend -- you have all the -- indicative that whatever the TRTs did it was not correct. Let me say something here. Keep in mind when we requested your records, drawings, that is what we -- we acted upon the experimentation given by the representatives of your company, and only based on their

experimentation will we reach our conclusion.

Now with the attempt to come to a conclusion it cannot be based on instrumentation that used to be at TRT. It may be based on some other instrumentation that you may have for a special occasion but not -- give it to one, then you give it to all.

MR. CLEMENTS: Let me address that and I want to -- the TRT, of course, came on site as an independent investigative organization. It was to our mutual advantage to maintain that independence obviously, but we believe that this sort of stiffled communications to a certain extent in that we at times were not aware of what specifically an inspector was looking for or whether or not he had found what he was looking for.

Now the specific training record, and let me just give you an example. The 33 inspectors, electrical inspectors that are on site collectively hold 770 certifications by instruction and by procedure.

We were not aware that having made those records available to the inspector, that the inspector had not found the high school diploma or whatever records were being looked at. When we received the report this was the first opportunity that we had on specifics, what exactly did you not find.

During the course of normal inspection an inspector will come up to us and will ask us for a record -- say,

I need this. I haven't been able to find this, but they talk to us about specific reports, specific cables, specific splices, and then we can produce those records.

MR. EISENHUT: What you keep doing is you're making an assertion with which we disagree at the moment and if we've got demonstrable evidence to back it up and we'll reconsider it, but why don't we just pass the slide by saying we don't agree.

The letter we sent to the utilities said that we spent "x" number of weeks on site and we asked for the records of the inspector qualifications and they couldn't be produced so we gave you a question and said we couldn't find them and they couldn't be produced in the time that we were on the site so -- and that's all we said.

Therefore, the question is -- this -- our issue when we discussed it in this room back in September was that you either (a) find the record or (b) go back and requalify the people. However, I have to say that I agree with Jose a little bit. We're just a little bit skeptical if we've been down on the site for three months and have asked this question over and over to a number of people and didn't get the record.

Now here in the last three or four weeks you find the records so I just wanted to make sure that we all understand where we are. Is that the reason for the skepticism

--it is something we're going to have to evaluate and it is obviously -- you came to a different conclusion than we did so we're going to have to go take a hard look.

MR. DENTON: We're not saying you may not be right. I am saying you're making an assertion which we don't agree based on the information we have.

MR. FIKAR: What you had at the time of -- knocking the efforts of the TRT that says now that we know what they're doing -- if somebody had asked me this question I think I could show him the records. That's all.

MR. CALVO: Focus to the point of an independent assessment of all functions. I think that is --

MR. FIKAR: That is the whole --

MR. DENTON: I see you have a program to address these issues, and maybe we ought to move past background and see what you are doing about them. Maybe it would clarify it.

MR. VEGA: Okay. In order to satisfy ourselves we recognize again that the TRT reached this conclusion based on what was presented and certainly we want to satisfy ourselves and address the concerns that have been expressed.

Accordingly, TUEC is conducting an expanded review of the QC inspector certification records against the project requirement and will assure that the training records are compiled in a format that clearly and concisely demonstrates

that each inspector meet the requirements.

The scope of this review would include all the electrical QC inspectors who have ever worked on site, and all other QC inspectors that are currently working at Comanche Peak with the exception of the ASME inspectors that we talked about -- talked about their program earlier.

MR. DENTON: Can you give me a feel of how big a population that is?

MR. VEGA: The total --

MR. DENTON: How many electrical QC inspectors have ever worked at the site?

MR. VEGA: The total number -- there are 33 electrical inspectors on site at the present time. The historical electricals are 86. The other disciplines excluding ASME are 75.

The action plan is basically structured in three phases. Phase I will be conducted by personnel that are independent from the site organization. These personnel are certified auditors. They're based in Dallas. They report to the corporate manager quality assurance.

MR. DENTON: What is a certified auditor?

MR. VEGA: They are auditors that are certified in accordance with ANSI N45.2.23. Our procedure is based on that particular standard.

This team will review all documentation available

for those inspectors and they will evaluate that documentation using a checklist with predetermined attributes that will generate a summary form that will either clearly indicate that all requirements have been met or identify those areas where the certification records cannot be verified.

That will be handled in Phase II. In Phase II --

MR. DENTON: Wait a minute. Going down the item -- do you think there's a difference between our audit and your conclusions and is there a difference over what the qualifications ought to be or is it a difference in what the qualifications of individuals actually were?

MR. FIKAR: I think some of the examples that were cited were in some cases documentation that was either not reviewed or not made available by us -- in the package, could not specifically identify. In some cases I can cite the item on the vision test, for example.

Our requirement is to have a vision test that is appropriate to circumstances. This particular person had failed the Ishihara test which is a standard dock test, but there is no commitment in the program to use that specific test.

What was done in that particular case -- the electrical level III who was also the electrical lead inspector at the site at that time formulated a vision test. Now the inspector was being certified to an instruction.

The only color discrimination that he needed to have was to be able to tell the colors of the information and the jacket. That was the only color discrimination that was needed under the specific instructions to which he was being certified at that time.

He took a colored pencil and showed the colors that we use on site. The person was able to discriminate that. On that basis he passed that particular attribute. Now that item was also reviewed. The test was also reviewed by the site QC supervisor and the training coordinator, and they all endorsed that item at that time.

It is things like that -- there is some element of interpretation. The standards that we are addressing is 45.2.6 and Reg Guide 158. As is the case with a lot of standards, the requirements are general, and there is room for a lot of interpretation.

We believe that that is the case. We believe that we are concise in what we say we are going to do and what we say is recommended and we are basing our conclusions on those particular statemenets and provisions.

MR. DENTON: I want to be sure we have a common understanding of whether we were discussing what qualifications should be or whether we're talking about individuals and maybe you could --

MR. CALVO: Also they are disagreeing with our

-- they're going to implement our action with our inspection.

MR. DENTON: So you agree with their standars for --

MR. CALVO: Yes, because if it is agreement with our finders -- consulted in disagreement with our action to the utility, then I guess we're going to have to resolve the difference.

The idea with our recommendations to go to the -- to all the QA/QC and getting it to all the other disci-lines except ASME and go through all the records and compare them to type of requirements -- find something that is wrong with it, and go back and determine what an individual has done. so it is irrelevant whether we can reconcile the end result. They're going to do what we ask them to do and I am pleased for that.

MR. VEGA: Yes, and we're going beyond that. We are also going to review the records of the current mechani-cal, structural INC so we are going beyond what the TRT --

MR. CALVO: Instead of -- give you my current argument because we talked to the individual who had trouble with the colors and he brought some things to our attention as part of the interview and without bringing that one into the table I don't think there is need to it -- the fact that they are going to do it -- asked to do, I think it will be all right.

MR. CLEMENTS: Well, the SRT looked at it after talking to Mr. Mega -- the fact that -- like Mr. Eisenhut said, if you came there and looked at those records and it wasn't immediately obvious to you when you looked at those records, that we need to do something to make it more clear and concise so that the records are better so our records henceforth, whether you were to come in and look at it will be more clear and more concise and lined up in a better manner.

MR. CALVO: I agree, but when we went there for the first time only one minute of my time. We asked for the records. There were no records --

MR. CLEMENTS: I understand.

MR. CALVO: That is the follow on -- we're going to make a conclusion based on the records and I said this is the latest and that is what we did.

MR. CLEMENTS: I am not arguing with that. As I say, I agree with you.

MR. CALVO: Yes, but were you -- for public consensus here --

MR. DENTON: I think that we --

(Simultaneous conversation)

MR. DENTON: Let me ask, Jose-- did that person imply that he did not have adequate color vision for the job he was asked to do?

MR. CALVO: When we talked to him he said it was given by the professional doctor -- he said that the chart that we showed him was kind of glarey. Couldn't distinguish the colors in there so I was just wondering if -- well, you know, sometimes those cables, determinations in the control room and sometimes they also color glarey.

MR. DENTON: I mean did he think that he was not adequate in this area to the job he was assigned?

MR. CALVO: He was very, very nervous.

MR. DENTON: But you think that he had adequate construction?

MR. VEGA: Yes, sir, and the reason being is that the issue -- it is a bunch of dots and that is --

MR. HEISHMAN: Let me follow your question for just a second. I am Bob Heishman with IE.

Mr. Vega, if you recall during the time that we discussed this issue a bit or it was discussed with members of the CAT team in the hearing, I believe, and during the time the CAT team was there, there was also some questions in regard to -- N45.2.6 of whether or not the program that Comanche Peak had and N45.2.6 were exactly the same and there was a great deal of discussion.

My concern now is that we don't want to go ahead and do all of these actions again if we're not together in terms of what the requirements are which is what I think

Harold was looking for and so I was satisfied at the end of the hearing and the end of the count inspection that we do have agreement as to what those requirements are. However, sitting here today and listening to this discussion, it raises that same question to me again in that the NRC people went in and made a finding and TUGCO people came behind and said that is not a good finding because there are some things that are different.

My concern is that as we go through and do all this action plan and we don't know what the yardstick is that we're measuring from, we're wasting our time. It may be thatit is appropriate --

Okay, I hope it is. That is why I raised the question.

MR. CLEMENTS: I don't think there's any disagreement between our company's QA program and what the NRC expects the inspectors to be qualified to, certified to.

MR. HEISHMAN: That is the only question I am raising.

MR. CLEMENTS: There's absolutely none.

MR. HEISHMAN: Okay.

MR. DENTON: It is good to pick out a case and zoom in on it so that we understand what you're doing. Now let's take something as simple as what -- in order to get in this program does the person have to have a high school

degree or equivalent diploma, and does your record review -- include looking at those kinds of things?

MR. VEGA: Okay, let me address that one specifically because that is one of the ones that was also in question.

Both the ICM 45.2.6 standard and the regulatory guide have statements that are cited verbatim in not only our response but also in our procedure. Both standards have recommended education and experience levels, but do provide for demonstrating via examination that the proficiency that would have been obtained by that experience and that education have been obtained otherwise.

Our program, we believe, is a lot more conservative in that it requires by examination that the proficiency be demonstrated not only in the context of the procedure and the instruction but in the implementation beyond the job training.

MR. CALVO: I am trying to recall where we find that particular -- I was briefly -- going on all these different categories. I remember I was discussing the 4:00 briefing. I remember directly indicated for this particular individual -- was made to the high school that he had attended, however, no response was received from his high school

There was no indication whether there was approval and piece of paper was in the file indicating that he had a

high school background. That is the record, and we say, well, let's go back again and we discussed it because it was part of the latest in NRC standard and indicated that you have to have -- should have a high school diploma, okay.

So I know we discussed that subject. The record was reviewed, and there was no indication there whatsoever of a high school diploma or a high school equivalent. It was recorded that a call was made to the high school and that was it. There was no record of any call back or anything like that.

That was the team found at that time based on the information provided to us by you people.

MR. DENTON: What did you do in that case?

MR. VEGA: In that particular case -- let me -- when I received the report I asked for the files, the particular files and then not only in the QA/QC but the items, the IRs as it were that were cited, the specific IRs.

I can address that as a separate issue, but when I talked to the training coordinator, he advised me that there was a GED. I did not really go into -- and I asked him. I said how long has it been here? He said, well it was here. I said, did you know that they were looking for that?

He indicates to me that he was not aware that there was a deficiency there. The GED was from -- now this

is the information that we had for the specific instance from Cleveland High School, and then he tells me that it had been there.

He was not aware that the team member was not entirely satisfied with the contents of that folder in that there was no communication. I am sure there was communication between the TRC member and you as a team leader, but there was no communication between the TRT member and the utility from the standpoint of telling us you have a deficiency here.

The first time we heard of that was when we received the report, and at that time then we said, okay, what specific person are they talking about. We got that information. We went to the file and the information was there.

MR. CALVO: All we can do is review what is in the files and we were told to also delay this information of ours. We looked at that -- that particular record was not there.

MR. EISENHUT: Now I think it is important to look at this generically because remember, we told you in our letter, we gave you five specific examples. We said we weren't trying to go through and list all of the problems we found because we didn't do 100% on it.

We certainly gave you five examples for you to look at this. As Harold said -- to give some real

understanding of what the issues were, so now the thing that I think when we look at your program of how you review all documentation, we will be going back and looking at how did you handle these five. How did you find -- handle the other problems we looked at.

Did you look behind the invoice so to speak. Did you really look and say did somebody go through and check every piece of it or did you just rely on someone else's judgment, that, yes, I've checked it and it's all right.

The degree to which you look at it is also going to be an issue.

MR. VEGA: Certainly and we concur and we intend to do that very thing, and we're not doing it not only with the inspectors that were suggested but we have gone beyond that and we intend to do that very thing.

MR. DENTON: What would be the product of Phase I?

MR. VEGA: The product of Phase I would be a summary sheet that would show an inspector the requirement that applied to his certification clearly indicating that either he met them or there was a question, a particular item could not be verified.

That particular item would then be referred for evaluation under Phase II.

MR. DENTON: Tell me a bit about the effort in

doing this. Is it one person or --

MR. VEGA: No. There have been anywhere from five to eight people, and I have been dealing primarily with the team leader so I don't know exactly how many people were involved each day, but it has been -- the resources have been allocated and they have worked continuously -- well, they've included work on weekends and they have been working till late in the day every day.

It has been a very significant effort by a whole team during the period of about three weeks.

MR. DENTON: Well, will the data be together this time so that if we ask about it, we can go down and pick out somebody's name?

MR. VEGA: Yes, sir.

MR. DENTON: Say we want to see why you think he's qualified and then you'd have in a folder or something all of the data which you relied?

MR. VEGA: Yes.

MR. MARTIN: Tony, there was one answer to this related series of questions that you gave a few minutes ago. You did point out that ANSE N45.2.6 addresses formal education basically that the applicant or the candidate should have high school diploma or equivalences.

However, you said that in your view because of the TUGCO program of certifying inspectors to specific

instructions and procedures and that they must demonstrate through examination proficiency in the procedure and its implementation and you said some other word which led me to believe that perhaps that certification process by procedure instruction and its implementation in your mind precludes the recommended educational level or precludes the need for the recommended educational level in ANSI N45.2.6, therefore, in your program -- now I am extrapolating.

I am presuming from what I thought you said and let me come in with a presumption and tell me if I am right or wrong that since you use such a procedure, you would not as part of the review of the qualifications of an inspector be concerned if he did not have a high school diploma or a GED because of this proceeding.

You don't concern yourself if there is such an absence in the file as long as the individual has always done work for which he has been certified with regard to the specific instruction and implementation.

MR. VEGA: Let me rephrase that slightly. We have defined what is a requirement and what is a recommendation, and we are treating each one of those accordingly. If the requirements have been met and that is the requirements for OJT, the requirements for classroom training and the requirements for examination have been met, then that inspector certification is considered acceptable.

However, we're going and looking at the recommended experience and education. If the recommended experience and education have not been met, then that is made note of, and we are going and we're doing -- if there is no verification for the high school diploma of a person, we're actively going out and getting it.

We -- it is not that we're not concerned. We are addressing it.

MR. MARTIN: I am trying to make it as unconcerned. What I am trying to understand is in the context of an action plan and in the context of the way you certify your inspectors, suppose the guy does not have a high school diploma or a GED, does not meet the recommended educational requirements of the ANSI N45.2.6 but he does meet the certification process, is there an action you are going to take with regard to the work that that individual did or are you going to say that was a perfectly certified inspector and I don't have to go and look at his work, and with 4 or 500 I presume inspectors on the job, you have some likelihood of hitting that condition.

MR. VEGA: We would classify that inspector certification as acceptable.

MR. MARTIN: I am just trying to make sure I understand that we don't rearrange the issue at another point and come back and raise the issue and --

MR. TIKAR: I think you characterized it precisely the way we --

MR. BANGART: Tony, your schedule calls for Phase I to be completed by, I think, today, and can you identify any individuals who, in your own mind are going to have to be referred to a Phase II kind of review?

MR. VEGA: Yes.

MR. EISENHUT: Out of roughly 200 what kind of numbers are you talking about?

MR. VEGA: Let me answer that by presenting things in perspective by way of documentation that we have.

We have 194 inspectors who collectively hold 1,629 certifications. Each one of those certifications we are looking at five pieces of information, indoctrination and training, general technical training, formal training in each instruction, on-the-job training and examination records.

That is 8,150 attributes that have been looked at. Out of those we have had 252 questions. This is something that -- something was not defined.

There is a question and if this is not perfectly clear that all requirements have been met, it is being sent to Phase II. It is a very, very conservative approach. All the decision-making is done under Phase II.

This is an absolutely worst-case condition.

MR. CALVO: I think you have got to be aware that

this is just only one input to the overall programmatic QA/QC electrical inspection -- in training, and that -- most common in QA/QC finish this test, and you've got to show -- you know, you've got to be conscious of the fact that all -- look into this and make a recommendation from the QA/QC because it's looking at the -- this -- our findings, conclusions, recommendations, how ACI indicates that this could be considered at the input of QA/QC program --

MR. VEGA: By the way, the numbers that I have cited are not only for the electrical but they're for the other disciplines and then historical so this is the total picture.

MR. EISENHUT: I understood that, that roughly that is how you get the 8,000, but now if Phase II is really the place you're putting the emphasis, can you characterize who the special evaluation team is?

MR. VEGA: Yes. The --

MR. DENTON: Can I go back to Phase I? I am still slower on Phase I here. The Commission sent out a bulletin back in the 1981 time frame asking people what they were doing with regard to meeting the requirements and the recommended sections of the ANSI standard and so forth so that when you do Phase I and -- are you checking to be sure that the requirements that you think are requirements were the ones actually committed to on the record?

MR. VEGA: Yes, sir. The action taken to generate the predetermined attributes were exactly that. Due to the procedures that have been used and they've been going back and taking the historical procedures -- those procedures that were used at that time were they, indeed, in accordance with the requirements of the standards -- that was part of the evaluation --

MR. DENTON: The requirements -- under you permitted to on the record to the agency?

MR. VEG Oh, yes. We -- well, let me make sure that I understand your question. You are asking me whether we have made sure that the commitments that are addressed in our program or in our procedures and instructions are consistent with those in the FASR in our quality insurance program.

The answer to that questio. is yes.

MR. DENTON: So Bob's question then about how you are handling requirement versus recommendations could be discussed somewhere in correspondence, and we probably have come to agreement on how to handle that in the deep dark past somewhere.

That is what you are following.

MR. EISENHUT: Harold, I think it is important to note that the project requirements --

MR. DENTON: About 1981.

MR. EISENHUT: About 1981 so --

MR. DENTON: I just wanted to make a point that you are meeting then whatever you told the agency you'd be meeting in those time frames.

MR. VEGA: Yes, sir.

MR. DENTON: That is what you're starting Phase I with.

MR. EISENHUT: Absolutely.

MR. DENTON: And there may be differences then, depending on the time frame. Is that what I hear?

MR. EISENHUT: The requirements do change in 1981, and at that point we're using the agenda procedures that apply and address -- those are commitments.

MR. EISENHUT: Harold, I have a question on Phase I, too. I forgot. You mentioned something a while ago that in the answer to a question -- you commented to the effect where you weren't sure of the details because the review team leader was doing such and such.

Who is the review team leader in this area? Is there a -- you mentioned about having issue coordinators, about having review team leaders -- they had been assigned as issue coordinators in some cases and in this case, is there an issue coordinator? Is there a review team leader? Are you both or are you one?

MR. VEGA: Okay. I am both for -- and what that

refers to is preparation of the plan, the action items, for submittal to the senior review team. I am both.

Now that is separate from this particular group that is doing Phase I. Do we understand that?

MR. EISENHUT: I have another question. Is there a review team leader for this issue?

MR. VEGA: Yes. I am both.

MR. EISENHUT: Okay. All right. This is one of those cases that --

MR. VEGA: Had I assigned that to somebody else to work on it, formulate and --

MR. CLEMENTS: Darrell, the head of the audit group, auditing, does not report to Tony. He reports to David Chapman and David Chapman reports to me, David Chapman being the QA manager.

The guy who is leading up this TUGCO Audit Group does not report to Tony.

MR. EISENHUT: The reason the question was asked of Harold of how many people are in the audit group or how big an effort is this TUGCO Audit Group and the same question I was going to ask about the special evaluation team is I was concerned about how big are they, how did they interact, how do they -- under whose supervision are they and how do they work under the issue coordinator or --

MR. CLEMENTS: The TUGCO Audit Group is working

separately. They are just a group that I brought in with the concurrence of our chairman of the SRT to completely go through the records and see what the condition of them were and what they can verify and what they -- what has to be referred to Phase II.

Those people are external to Tony's organization. They report to David Chapman in Dallas and David reports to me.

MR. EISENHUT: Okay. Is it fair to say that that job is more non-decision-making but rather what I'll loosely call administratively going through the files and compiling the data so that they've got a certain --

MR. CLEMENTS: He says up there that they have a checklist with predetermined attributes, and if they can verify those attributes are theirs, fine. If they can't they are referred to the SRT.

MR. SPENCE: The judgmental aspects of it come in Phase II under another --

MR. EISENHUT: So Phase I is really collecting data and putting it in bins --

MR. CLEMENTS: That's right. Making sure that the record is better to look at. That is what I was referring to a while ago.

MR. DENTON: Let's go to Phase II.

MR. EISENHUT: The question on the floor is what

is Phase II and what is the Special Evaluation Team.

MR. VEGA: As far as Phase II is concerned, answering your question first before I get into it, the Special Evaluation Team is a team that is comprised of people outside of Texas Utilities Electric Company.

These are consultants that will be writing the procedures and will be in essence responsible for administering the items that are defined under Phase II.

Just to repeat what I said earlier, any questions that are generated out of Phase I, any instance where a record is not verified in Phase I will be referred to Phase II. They will use specific evaluation criteria and the basis that they use for their decision will be documented.

MR. CALVO: Also on Phase II will be root cause if appropriate -- also will be developed on Phase II.

MR. VEGA: That will be addressed in Phase III from the standpoint that quality engineering and we'll take the items that, where qualifications cannot be demonstrated, they will review the record to determine the safety of the project and they will then answer the question why did it happen.

MR. CALVO: On Phase II -- you found something with Phase I -- would it not be a possibility of Phase II -- one is the group cost, whether to do some work because something went wrong with Phase I. If everything is okay you

don't need to have Phase II or Phase III.

MR. VEGA: That is correct.

MR. CALVO: Because if you look on Phase I to Phase II you must have some root cuase there on Phase II to be evaluated.

MR. CLEMENTS: We would ask the SET to make their determination of what caused the problem.

MR. EISENHUT: Yes, I just second Jose's -- think it's necessary because those are the people that he's laid out the problem for who are really going to be looking at the questions that come out, the questionable areas coming up with using specific evaluation criteria.

I think that would be the group that you would certainly want to make a call at least in the first instance. Phase II appears to be -- now, given whatever you've got, going out and looking at whether or not the plan is safe or not.

MR. CLEMENTS: Yes. We would ask the SET to take a look at those reasons, why they happened.

MR. EISENHUT: And then I would expect that when you -- perhaps I am getting ahead a little, but whenever you send us your response to 1D1, an integral piece would be whether the special evaluation -- what the special evaluation team concluded.

MR. CLEMENTS: Yes, sir.

MR. EISENHUT: Good.

MR. NOONAN: One other question. On the Special Evaluation Team, it is still not clear to me who those people are. You said consultants? What does that mean?

MR. CLEMENTS: Well, we've selected two of the people for the team and rooting for a third person. I think I have him in mind. We have two people that meet the requirements in the action plan, Mr. Noonan, and I have forgotten one of their names.

The third person we're looking at is a man who has been in quality assurance for 30 some years and we're still talking to him to see if he's going to be available.

That is -- those kind of people, external to our company. None of the three of them have ever worked in any consulting job with our company until now.

MR. DENTON: It is time to take a short break.

(Off the record.)

MR. EISENHUT: Administrative items first.

Over the break we discussed it, and I think we came to the conclusion that it would be best to go ahead and break at about 1:00 which was our previously planned time so recognizing the hour, we just ought to press on through to where we are at 1:00.

From a logistics standpoint I think we ought to go ahead and continue through to finish the QA/QC area.

Perhaps the second area we ought to continue through would be the electrical area following going on to the other areas in whatever order you have it.

I asked that each individual identify himself, particularly those people from the audience if anyone speaks, to identify themselves for the court reporter, and with that why don't I press on if that's agreeable to everyone.

MR. VEGA: Okay, for the record, Tony Vega again continuing on QA/QC with Item 1B2.

As a resulf of the TRT assessment, the NRC identified a lack of certain guidelines in our testing and certification procedures for electrical QC inspectors. The action that was specified by the NRC was that TUEC develop a testing program for electrical QC inspectors that provides the recommended guidelines to assure that suitable profiency is achieved and maintained.

By way of background, the current procedures allow for the engineers to develop tests appropriate to specific circumstances, and we recognize that additional guidelines would reduce potential for inconsistencies.

Accordingly, DUEC intends to trace the following actions; relevant procedures will be reviewed and appropriately revised to provide more definitive guidelines including those recommended and will point out that these procedures pertain to the training and certification of all inspectors,

not only the electrical inspectors so we are applying a generic solution, and certification tests currently in use will be reviewed and appropriately revised to reflect more definitive guidelines again consistent with the recommendations.

This is a rather short item. This is all I have.

MR. CLEMENTS: You didn't point out Tony the outside support.

MR. VEGA: Yes. Thank you. I would like to point out that we have acquired the services of an independent contractor to come in and look at our training program, our procedures and to help us to improve our program, to give us comments so that again we can upgrade it and have the best possible program that we can have.

Are there any questions? Gentlemen, thank you.

MR. MERRITT: Thank you, Tony.

Larry, if you would please go ahead.

MR. POPPLEWELL: My name is Larry Popplewell. I am the team leader for the electrical and instrumentation group. First issue involve heat shrinkable cable insulation sleeves.

MR. EISENHUT: Before you go on maybe I could ask the same question I asked Mr. Vega earlier. Can you characterize your background, your involvement or your non-involvement in this particular area and associated problems previously?

MR. POPPLEWELL: Okay, I am at the present time the engineering manager for the construction engineering group. Previous to that which started in 1979 I was the project electrical engineer. Recently I assumed the role of the engineering manager August 1.

Prior to that I was in our Dallas office involved in fossil plant design and construction activities. My educational background is that I am a degreed electrical engineer. I am a registered professional engineer in the State of Texas and I have a master's degree in Business Administration.

MR. EISENHUT: How long have you been with the company?

MR. POPPLEWELL: Been with the company 13 years. As far as my involvement with regard to these issues being the project electrical engineer, I have been involved more or less in all of them at one time or another.

MR. EISENHUT: Let me ask you a quasi-philosophical question. Were there anything in the findings of the TRT that surprised you?

MR. POPPLEWELL: No.

MR. FIKAR: I was going to answer that, too. We're not really surprised of the findings. We can understand how you got to them.

MR. POPPLEWELL: As each group, Mr. Calvo's team

members would either speak to me or others in my organization we discussed their questions and tried to formulate an opinion as to what the issues were so we were not surprised.

MR. EISENHUT: I am sorry. That last thing has raised more questions than the previous answer because -- were you not surprised just because of the continuing dialogue the staff obviously was working there at the same spot or -- really the question I was asking was more on the lines of were you surprised that these issues came up after at least, in your mind I would have expected you would have thought there would really be no significant issues that we would be identifying that would be brought up this late in the project.

It wasn't really more the surprise of a few months ago versus now. That really wasn't what my question was.

MR. POPPLEWELL: I am never surprised of the issues that come forth -- because there are questions to be asked and questions to be answered.

The NRC stated and it's recounted for you in our plan that there was confusion existing as to when witnessing of the installation of the shrinkable sleeves was to be documented. They cited some examples of that.

Our action was to -- requested by the NRC was to clarify our procedures, perform or have the inspectors try and assure that the sleeves were installed where they were

required.

We also did some of our own looking and we determined that the inspection reports do not consistently indicate when witnessing is required, witnessing of installations. A possible uncertainly exists as to when documentation is required; however, we agreed that there was no instances observed where the sleeves were required and were not addressed by the inspection reports. In order to keep this possible uncertainty at a low level and nonexistent, we are going to revise the installation procedure, revise the inspection procedure that follows, train and certify the inspectors to the appropriate procedures and initiate an inspection sampling program to assure that the sleeves are properly installed.

MR. CALVO: The only question that I had was with the sampling system. Maybe we can discuss it because I have the same generic concerns of the sampling system. You could use the mill -- I don't know which revision you have. The one that I am looking at is 1962.

By looking at it and trying to understand how you would accomplish this, the concern that I have that is not quite clear from that standard is what you put in the extra claim and maybe would like to request that you would include this in the amendment to the action plans -- indicate how many of the number of inspection reports that you are

going to look at and based on that number of inspection reports that you are going to look at, indicate what is the selection, what is the random sampling that you're going to use and which equipment associated with inspection reports and what have you selected.

I also want to indicate what is the probability of success to achieve a 95 competence -- 95/5 and you indicated. Also I'd like to know what is an acceptable quality level to achieve 90 percent -- 95 percent competence and now the other one -- what is the inspector sample site if a normal inspection failed to be 95 percent competence level. It really worries me.

The Comanche Peak has two redundant trains, okay, and if you go back to the safetyness of the claim, we postulate an accident, concurrent with the outside power, assuming a single failure, and I am going to assume that failure of a diesel, so I am going to disable one train.

Now I am only -- the other train, and I am just wondering if using the sampling system you -- rejection is acceptable criteria that you could use in -- give you a rejection of approximately when you exceeded 22 bad reports.

The question is which equipment do you select so you can make -- do you select a diesel and you concentrated with it -- of 21 -- what is the significance of those 21 projections. All I need is one more termination with the disel that is remaining there and completely lost the capabil-

ity so I think the selection equipment that you're going to use for the -- see we didn't select the equipment which, upon their failure, under accident conditions -- would be lost to outside power -- have to greater contribute to a --

In this case I would like to concentrate your random sampling if you can and the diesels and the batteries, those pieces of equipment or inspections that have been greated contributed to the plan -- to lose the intent to function in the middle of the action and concurrent with the lost outside power.

That has got to come up in the report because otherwise you could be concentrating on 500 with emergency lighting that have no -- except the consequences. That -- the report is missing not only in this action but in all the other action plans.

MR. POPPLEWELL: That's correct because we did not get formulating --

MR. CALVO: And this is standard -- that is not explained here very well either, and also you must go to the applicability of the standard to -- where you have a nuclear power plant. Talking about pieces of equipment in here -- missles, and not only can lay that to focusing.

I wish you'd consider those comments and address them and go over the basis for why you want to use the central system.

MR. EISENHUT: Lou, did you get all that down?

MR. FIKAR: Yes.

MR. EISENHUT: Good point.

On several occasions you had mentioned that the program plan at the time was being developed and certain things weren't available and things have evolved since then. One thing I guess I'll ask you at the end of the meeting would be to consider revising or updating or amending the program plan, prior to our approval, obviously to adopt our comments and to update it to other information that you have.

MR. FIKAR: Yes. We intend to.

MR. POPPLEWELL: That is all I've got for this one.

MR. CALVO: One more -- I guess you don't have to give the answer, just for the record. I went through this in here -- and it had to do with action 4B -- you didn't mention the fact that -- I look at you -- construction inspection procedure - QI, QP-11.3-40. It was not addressed in your action plan.

You can provide the reasons for one -- that was not used in here in these action plans.

MR. POPPLEWELL: Next issue concerns inspection reports on butt splices. NRC found a lack of documentation on butt splices --

MR. CLEMENTS: Speak up a little bit.

MR. POPPLEWELL: NRC found a lack of documentation on butt splice inspections. They cited several specific examples of this. They requested that to ensure that the required inspections have been performed and documented to verify that the butt splices are identified on drawings and to verify that butt splices are identified within appropriate panels.

We took a look at this particular issue and reviewed additional inspection reports and I agree with the statements that have been previously made that inspection reports or documents may exist that may not have been asked for because they may not have been known to be asked for.

Our inspection reports on cables, for example, concern cable pulling -- exists with cables, any activities involving cables such as termination, want to lead her in, any repair that exists, any splicing that exists, any re-termination that exists, all have their respective inspection reports.

I am not sure what Mr. Calvo's groups reviewed. When we looked at the inspection reports involving the butt splices we found that the butt splices had been witnessed and had been documented on inspection reports that occurred during the time that the butt splices were made.

Some inspection reports that were documented in your letter of September 18 were inspection reports post-

verification -- post-instruction verification inspections, etc. so that attribute was not either witnesses or was not verified.

We did, however, find that those documents did exist. Based on the fact that there is a disagreement between our findings and the findings for the TRT, we're going to institute an inspection program to assure ourselves and you, too, that this is just a misunderstanding of where documentation might exist, and we're going to review some inspection reports and some cables and do some inspection there.

MR. EISENHUT: Well, let me ask you a basic question. You said you found that inspection reports did exist.

MR. POPPLEWELL: Yes, sir?

They were in the file. Were not lost.

MR. EISENHUT: All right. They were in the file where you would expect -- I mean all the inspection reports on cables to be?

MR. POPPLEWELL: Yes, sir.

MR. EISENHUT: I mean you didn't have to -- all right.

MR. CALVO: The problem is that when we get the inspection, the random sample inspection report, if they are reports that we've had reviewed -- indicated that it was an only report -- deference to something else -- then we -- never found the reference and we assume that -- the

inspection reports --

MR. POPPLEWELL: That's correct. That would not be referenced because the inspection process would not necessarily reference previous inspections. Let's say we have a -- maybe Mr. Vega can explain the process a little bit better than I.

MR. VEGA: Yes. Let me tell you what we did when we found out exactly what we were talking about. Brought the specific inspection reports and then pulled out the cable numbers. Knowing how things are filed at the site, we asked for all the inspection reports for all the cables that were listed on the inspection reports.

We initiated this action about 11:00 in the morning and by after lunch, by 1:00 we had a stack of inspection reports that covered all inspections that had been done on all the cables and as Larry mentioned, some dealt with the pulling of the cables and subsequently the termination of the cable and then the splicing during the Three-Mile Island modifications that were done which is when some of these splices -- when the splices were done and then the IRs for the construction verification.

Again it is just knowing how things are filed and how to call them.

MR. CALVO: Again, we did ask these same questions you asked when we were there. All the inspection

reports -- after we selected the random number of them then we went back and said, let's find out if there was anything else that had been done after this particular inspection report that we had done.

They said, no, that was it. There's nothing else. So when you're saying -- you know, the capability to retrieve things independently -- some kind of way it appears that we are -- appears that we have some problems on that. Supposedly you're finding the right thing and we're finding the wrong thing but independently we have requested -- maybe same request you made and we're finding reports that we found some deficiencies with so it still -- something in there problematic as far as the capability to retrive records and independently assess whether those records had been carried through and the deficiencies properly implemented or corrected.

MR. : My understanding -- this was presented in the Review Team -- was that you guys may have asked for the last section of the report. Didn't ask were there any inspections performed after that and the answer was no. As both Larry and Tony indicated, there are a variety of inspections that were done during various time frames associated with cables and questions, and were these inspections documented -- inspection reports prior to the final one -- whichever one was in the final evolution.

In other words the inspection reports are done on an evolutionary basis.

MR. CALVO: Yes, but you don't care about the past. You care about what you had and what you have done sometime in the future, and that question was asked and the information provided to us is -- that information that we used to get to old findings.

You've got something else in there that you do not provide it -- it appears that this is the second phase that we had the same kind of a problem. The information some kind of way was there and some kind of way was not made available to the TRT.

You can leave it at that.

Then the action that you take -- I have no objection with your action for that Phase I.

MR. NOONAN: Before you go I'd like to ask a question on this and maybe Mr. Vega is the one to answer it. Were these files used by the QA people prior to the TRT coming in?

MR. VEGA: No. We did not -- we did not know what records were asked. I did not talk to the people that TRT members talked to. I don't know how exactly the questions were raised.

MR. NOONAN: I am not talking about that.

MR. VEGA: Prior to the TRT --

MR. NOONAN: Have the QA -- reviewed by QA organizations?

MR. VEGA: Normal QAs are reviewed but not anything post to -- TRT was coming. Is that what you mean?

MR. NOONAN: I am talking about normal QA reviews.

MR. VEGA: Yes, sure.

MR. NOONAN: It had already been done prior to the TRT?

MR. VEGA: Yes, that had been done but not because TRT was --

MR. NOONAN: Right.

MR. EISENHUT: Well, I guess that goes back to something we talked about earlier. There will be people obviously going back to the site doing some additional -- this was the point I made earlier when I said that we kept emphasizing in previous discussions that the first iteration that discussions had been done -- so then I would say that the next time the people go down to the site and look at things, we want to make very sure that the staff -- if you have got to twist the question a little bit -- I am going to request you folks' help in helping us ask the right question.

MR. FIKAR: We'd be glad to.

MR. CALVO: Keep in mind that in some cases we could not have done that because we are trying to protect

the --

MR. FIKAR: I know.

MR. EISENHUT: We appreciate that.

I think that is the key right there.

MR. CALVO: But again you should have a subtle record -- independent and can be verified.

I don't want to go around the world to determine whether you have done something in the inspection report. When I want to have the cable there I'd like to know what else can be done with that cable, not only what this report was -- you are going to the future -- the satellite inspections you're going around with.

We asked for that information and we didn't get that information. Maybe we're asking for too many -- trying to protect the source. That could very well be the case.

MR. VEGA: These inspections had been done prior and so if you asked for anything from here on now you would not get them. You would have to have said let me see the inspection records for everything that has an inspected on that cable during the history of the cable.

MR. CALVO: We also do that. Anyway, I do not agree with 12 additional cables. What did you base this when became 12. Why not 300? Why not 1,000?

If we have a problem or not -- the record that I reviewed and the record that you reviewed -- they're

different.

MR. FIKAR: Well, you asked why. We proceed differently and if we have a disagreement we find out now.

MR. CALVO: That's correct.

MR. FIKAR: But you asked why. We found there was nothing wrong with the six cables you gave us and the other six is 12. We said, okay, we'll review them again and we'll just take 12 more random. We'll go out and get some cables and look at them.

That was the reasoning the FST decided on and it is as simple as that. You say, well, take another 12 and then look at it -- exactly that.

MR. CALVO: Because my office and the people that you've been -- going now to 12. I think you should use the same sampling techniques that you use for the -- what you did before for the shrinkable sleeves, you should also use it --

MR. GOUBERT: I want to make a point from the SRT's perspective. Let's use this. If you can show objective evidence that there are inspection reports for all of the cables in question -- evidence in the file, then if we're in a position where there's no question with respect to those cables, we're going beyond that -- 12 more cables.

MR. CALVO: You can use that argument for anything

you've done in here and if you found something wrong with TRT, we're going to show it to you that the -- documentation we looked at is the wrong -- for all practical purposes you accomplished your action and you have nothing else to do.

MR. GOUBERT: All I am saying we were doing is --

MR. CALVO: Based on your system of record, and were there -- we requested the right kind of information and we didn't get it -- three months later that information in some kind of way was misplaced and we didn't ask for the right kind of things -- all of a sudden it's in your record. That's our finding.

MR. FIKAR: Jose, you characterize that rather differently than what we see it. Now if you had come to us and asked us specifically what you wanted, we would have found exactly what Tony found. It is unfortunate that didn't happen. Part of that is our fault and part of it is the independent's problem.

We need to get you to go look again at all these records and then if you still feel that way we can pursue but if you're still seeing your position and not accepting that perhaps unfortunately we weren't able to furnish you what you wanted and we tried. We just didn't get it to you.

We need to have another pass at that. That is what our team felt. Well, in this particular instance we didn't find anything but we'll look at another 12. Now if you

don't agree to that we may have to do more.

MR. BECK: Let me just say something. Apparently what is needed is -- the most common thing I've heard throughout the last few days is that we come up to -- whether this number is 12 or 1200 -- to me it doesn't matter as long as there's foundation. If it doesn't appear clear to the staff then there is no basis for this number.

MR. CLEMENTS: Our problem was was what they said. We felt like -- a lot of times in order to pick the source of the allegation of whatever it was that the right questions weren't asked of our staff, and that is not our fault.

MR. CALVO: Let me give you the significance.

MR. BECK: The staff comes in -- doing on it -- they have to go under certain constraints. Have to protect the identity of the person they're dealing with. That is uppermost in their minds. Files should be auditable. Should be in a form of --

MR. CLEMENTS: I agree. We need to know what files they're looking for. If they're dancing around the subject at hand, then maybe we don't produce the right records.

MR. CALVO: Let me give you the importance of this particular issue. Butt splices, according to requirements are properly discouraged and in some cases they have been prohibited. Right after a guy won -- butt splices should

should not be allowed in cable --

MR. POPPLEWELL: We don't disagree with all of that.

MR. CALVO: I am getting to the significance. In amendment 44 to the FSAR you provide her with information relevant to butt splices, and you say well, look, my commitments before -- I am trying to have some exception to those commitments. I am not going to comply with these requirements, with this criteria as part of your FSAR.

Then you -- right in amendment 44 across and you say, I'd like to do somebody's splices because problems are happening with manufacturers, things have to be changed around, and you say, okay, we're going to look at it and based on that guideline we're going to find out whether it is acceptable -- based on this limited amount, okay?

So we're getting by with these butt splices -- we feel that we're giving you exceptions on a commitment, and we figured out that it was based only on limit so that they felt that the butt splices was a very significant deviation from figures of your requirement -- say we want to concentrate on this effort so that is why we picked this up.

Some allegations to that effect -- you have not done this kind of work, so based on that we had to be careful what we selected and we did this.

MR. POPPLEWELL: Let me make one statement to

clarify. There are approximately 8 cabled butt splices in these cabinets, and I understood that the TRT looked at a number of cables and butt splices in them.

Using a factor of five or maybe ten splices per cable -- I am talking about wire per cable, we're talking about the TRT looking at a minimum of 120 splices. We are going to look at an extra 120. I believe that that issue is greater than what we would find by most standards even though we didn't --

MR. CALVO: It is not good enough.

Why don't we look at 100 percent of the butt splices because I am only accepting the design on the basis that you've only got a limited amount of them -- want to know how many you have. That is our position on 1B2 and also on the next one that we're going to talk about -- butt splices.

I am sorry. We took a position and we say -- we think it's different from that and we are belaboring our own report. I am saying consistent with the verifying all of the butt splices on Phase II, maybe you can factor into that how many inspection reports that you can look at consistent with witnessing how those butt splices were done.

As a matter of fact when you get to next one you are going to find out that you are doing what I am asking you to do because the next item that you have you say that you are going to have to do that to verify compatibility of

the butt splices. You are again saying here -- when you go to the other one you're going to find out that you truly -- you are going to follow our recommendations.

Why don't we put this in abeyance for a while and get to the other one and see how we are.

MR. POPPLEWELL: The next one is 1A3 and has to do with the qualification of butt splices. TRT found the lack of splice qualification requirements and they found a lack of -- in the procedures of the operability -- verification of operability in the circuits in which splices occur.

We were asked to develop procedures to assure qualifications to service conditions which the splices were installed and to make sure that the splices are not located adjacent to each other.

Our installation procedures do not address the operability of circuits, but our startup program does and we rely on that. Installation procedures do not address qualification of butt splices in formulating our amendment 44 which you wrote the SER to, we looked at the mild environment conditions in which the splices were found, that they were the same construction as the total and I believe these are spelled out in the FSAR amendment.

We installed them in the applications per the FSAR requirements. New criteria was offered to us in the SER which was to stagger the butt splices. Our action plan is

to preclude any misunderstanding. We will include a continuity check in the construction installation procedures.

We will supply or develop the qualification documentation by contacting the appropriate vendors, get an appropriate qualification document, and we will perform the inspections necessary to ensure that the splices are appropriately staggered. That will publicly answer your concern from the previous one.

MR. CALVO: That's right, so if you're going to do it in here you're killing two birds with one stone and we'll be --

MR. POPPLEWELL: Right.

MR. CALVO: So what I am saying -- I guess my comment is that this particular action plan, Item I.A.3 and Section 4A, the action plan -- you can coordinate that one with Phase II in item I.A.2.

Also bandles containing splices in Section 44MB of this item 1.A.3, also you can coordinate that one with Phase II of Item 1.A.2, so whether you would object or not to do that, look like you also accomplished anything here.

What I am asking is to [illegible] Phase II of the previous one and coordinate that one with Phase I in determining, based on the effort in here -- how many inspection reports you are going to have to witness it because it ties back to the butt splices.

MR. POPPLEWELL: So you're asking us to modify our plan to --

MR. CALVO: Yes, because we know where the busy ones were and you didn't want to do 100 percent, but you have to do 100 percent anyway in here.

MR. POPPLEWELL: Okay.

MR. CALVO: Now the other question that I had with this particular plan -- you indicated that you have done these tests as part of your installation. I believe --

MR. POPPLEWELL: Part of the startup program, yes, sir.

MR. CALVO: But I guess if you did this test I'd like to, I guess, indicate how the test was accomplished as relates to the butt splices. Also what were the exceptions in rejection criteria or accepting or rejecting butt splices.

Can you tell me how any one -- that it cannot work. You say that you have done it before.

MR. POPPLEWELL: I don't believe that our startup procedure addresses butt splice installation or usage specifically. The circuit continuity check, however, is addressed. I believe Mr. Camp can maybe speak to that issue.

There is a program --

MR. CAMP: We do not address any testing of butt splices in the testing program As Larry said all that we addressed is continuity of circuits and comparability of

butt splices.

MR. CALVO: I understand that but there has got to be some kind of way in the record to -- that you had done this -- some kind of way with everything -- you have all these splices that you tested in tests from which one you had rejected and what action you had taken to correct it and you also will follow then and determine what the roof calls for and get that and -- then what else you can tell about splices.

If there's something about butt splices -- because we accept the ones you had based on the whole entity and based on the limited amount of -- that is the basis of our technical evaluation.

You encounter the action -- to challenge that action, but you've got to come up with the justification of -- to allow us a true test, whatever is included to prove the adequacy of it, and all we want to know is that you have tested them. Tell us what you did and tell us how many you have found wrong with it and what was your rejection material and what was your corrective action.

MR. POPPLEWELL: That needs to be outlined in our action.

MR. POPPLEWELL: That needs to be outlined in our action.

The next issue addresses agreement or disagreement

when drawings of field terminations. NRC found physical locations of selected cable terminations did not agree with the drawing. We were requested to inspect all safety relating terminations in the cable spread room and control room cabinets and verify that the locations are depicted on the drawings.

We reviewed the selected cables that were given to us in the letter and reviewed the design changes and temporary modifications from the startup program and found that we have no safety -- no adverse safety significance in this agreement between cable terminations and drawings.

MR. EISENHUT: When we met on the issue that we laid out, I remember we specifically said we gave you selected examples of that that we thought we involved. We had a lot more where we thought there were problems. We had reviewed a large number. In fact there was one train of thought that would say, enumerate all the concerns we have.

Another train of thought which prevailed is -- I don't want to tell you an example of every problem I have got because if I did those I was afraid of what you were going to do. If I told you -- I have identified 43 problems, and you would have evaluated 43 and said, yes, there is no problem in those 43.

The issue that we were trying to get to was not the -- go out and -- the NRC certainly didn't want to carry

the burden and say we've identified the problem, but rather we wanted to say -- to give you -- here are some examples of the kind of disagreement between drawings and actual field installation that we found.

We recognize that some of those may have essentially no safety significance. However, it is indicative of a bigger problem. It is indicative of a problem that based on our audit of the drawings and the field installation they were different so we asked for a program to verify and to rereview what was out there.

To come back and tell us that the ones that we gave you had no adverse safety significance, we probably could have come to that conclusion ourselves. That is really not the issue. The issue was that we found, we came to the conclusion on this item and on a number of other items that there is clearly a difference between what you had in your -- what you were supposed to have in your plant and what you had as dictated what was supposed to be by the drawings.

What we were looking for was a program to verify that the plant was built in conformance with the drawings and the application, etc.

That is why Jose's issue was -- it sounds like you fell into the trap or it certainly reads like you fell into the trap which we were trying to avoid getting into by saying that we've identified all of the problems we found.

Heck, I told the staff save all the biggies for later. Now I mean what does that do to the program, I don't know because frankly I was relying on you to come back and not try to punch holes in the particular examples that we listed, but rather really try and look at it in a broader context of what the problem might be.

I think that is -- Jose did -- that is the kind of --

MR. CALVO: Yes. The action that you take is -- it is contrary to what your findings are.

MR. FIKAR: Maybe we're dwelling too much on findings and the actions are --

MR. CALVO: Yes, agree, but the records show that we make the TRT look silly and that is the -- I know that is not the purpose, but you have given the backgrounds in here. I can argue and say well, if everything that you followed made no sense, what do you gain -- go back and do all these action plans. I mean you go through all these and found nothing wrong with it, you can action plan -- that is the second one we asked you to do, okay?

MR. GOUBERT: The reason is this though. The reason it doesn't go exactly to what Darrell had said -- the SRT recognized that you did do some of the program and they recognized that you may have found some things that were by potential, discrepancies.

We want to look at those individually to get some flavor to how these discrepancies may have occurred. Now even though we found some ways that perhaps justifies that there is no safety significance associated with these particular examples,the bottom line is there were some examples of discrepancies.

The standard we want to apply is in that there are some discrepancies, that the reasons behind them -- let's go look at a large enough sample of them and see if we find that there is any situation where we're running into safety significant problems.

MR. CALVO: Agree.

MR. GOUBERT: That is why we didn't -- if we were taking a position as a program -- that if we could refute your example, we weren't going to go any further and you'd have cause to be concerned.

MR. CALVO: Yes, but you see --

MR. EISENHUT: Jose, just a second.

MR. CALVO: Something else -- if ability for retrieving your records there -- it is not there, okay. If it was an independent assessment is what you had -- whoever made that independent assessment -- it was getting wrong records, see?

Something wrong with the capability to perform an independent evaluation on what you have out there. That

is what concerns me the most. If we do something wrong that is good, but -- if it's one time, but it's consistent -- if we do something wrong, well, I said, we're working on Comanche Peak and maybe we don't follow their -- I don't know.

(Laughter.)

MR. EISENHUT: Jose, let me make a comment here to try and help. You see I think John made a key point. Nowhere in this report or in your presentation do you matter of fact state that the discrepancies indeed are valid.

Rather, it comes off as arguing -- being argumentative that well, these are nothing -- there's no adverse safety significance. The discrepancies exist and I think if you -- if on each of these items if you clearly acknowledge there are discrepancies.

There are physical differences out there. Now it is tied to the processes that are at work. You are supposed to have a process where you engineer the thing, design the thing and go out with drawings and construct it in accordance with that application.

Clearly, it didn't work on some examples. There are discrepancies. It is not so much to us in the first incidence that, well, never mind these examples because there are no safety significance. You come back with a program clearly right where we're intended to go in the first place,

that you must have a program to verify how many are out there and how many discrepancies are there, is it widespread, is it limited, what is the nature of them and then you have to do a safety evaluation.

That logic is what doesn't appear on either the slides and it certainly doesn't appear in the writeup and I think that is the item the staff is reacting to, that first you have to identify what the problem is and what the cause of the problem was.

Then you can argue as to whether or not this is a major problem or not a major problem. I think that is the thrust as I see it. I don't think it is productive to continue to debate it but as long as -- but I think that is a key point.

That is the message the staff had when they read the report. That is the message they see when they read the slides. I by design in the September 18 letter limited the examples that were given in the letter to be only a fewexamples because I was really afraid that if we said we reviewed "x" number and we identified these problems.

There's always a tendency on anybody's part to go and evaluate those examples and say, but by the way there are no big problems. We're certainly -- get a limited sample. It is incumbent upon you to convince us that, in fact, you have done a thorough enough of a review to identify

all discrepancies or to at least be able to identify it well enough to have enough conscience.

Jose has a statistical item in mind, what he's looking for, and you have a program laid out. It is the background and findings that we take issue with in a number of these cases more than we do the actual actions.

Is that fair to say, Jose?

MR. VEGA: Let me address the comment on record --

MR. CLEMENTS: No, we kicked that around. I don't think we have to --

MR. SPENCE: I think Tony means to say this though. I think it's important.

Just anticipating what I think you're fixing to say.

(Laughter.)

MR. VEGA: One of the things that we found in going through some of the examples that were given to us and again we don't know how many examples you have, but that is all we had to go on.

We went through and our system is not simple. I don't know whether, yes, when you compare a drawing to a physical item, that isn't the complete story. There are component modification cards. There are DCAs, and there are also modifications, temporary modification authorizations that also are perfectly acceptable methods of changing what

is in the field and unless you get the complete story you haven't had -- you don't have the complete picture against which to go and measure the physical configuration out in the field.

Now Larry may be -- we have changed our approach, too. We had some specifics as to what we had found and why it is that it was no safety implication.

We also wanted to answer the same question that you had in your mind and that is do we have a situation out there where unauthorized design changes are being made, and, therefore, what is out there in the field is not representative of what engineering has approved, and I believe that three of the five examples were covered by temporary modification.

Larry, help me there if I -- there was one instance where there was a drafting error in the drawing. The lead was blue or black and it was shown on mistake on the drawing. If you go to the component modification card that authorized that change, the color of the conductor is consistent with what is in the field.

On the print item there was a connection, a two-lead connection to a dry contact that had no polarity requirements. It was a duly cabled -- the leads were changed, so I want to make sure that I address the comment about record retrievability because I believe it, to a certain

extent, it's unfair to us because we don't know what you have deficient in your record because you cannot -- you do not want to compromise your information.

That doesn't mean that the records are not there. That means that we cannot communicate freely and, therefore, in some cases, the TRT may not have looked at the right paper. You know, it isn't a lack of record retrievability.

MR. CALVO: But again it goes back to -- when I requested the drawings, asked to give me all the drawings that dealt with this particular piece of equipment and this is the latest drawings available for UTRT. We used those drawings as being the latest piece of information, DCAs, CMCs, and based on that we concluded that in the cases that we had inspected, that the equipment, the hardware did not match the drawings.

Now if you say that the system is so complex and it is not simple enough and -- I am just wondering also whether or not you people -- any trouble looking at these drawings and trying to make some changes.

MR. VEGA: Well, again we are proficient and work with these systems day in and day out. Again, if you asked for a drawing and the CMCs and DCA -- that is what the people gave you.

MR. CALVO: But the people who brought these allegations to our attention are people that you think they are

proficient in doing.

MR. VEGA: I have no way of knowing whether they are proficient or not in that area.

MR. EISENHUT: Well, let's see. Tony, I think your credibility in my mind went up by one notch when you acknowledged that it is a very, very complex system. That is why I think we take a lot of weight of what you come back with when we say we think we've identified some potential problems.

If you come back and acknowledge and tell us that they're either right or not right, that they're either all problems or not problems to start with, regardless of what your safety significance are -- it certainly would help.

You certainly know where all the drawings are. You contend that there's this card and that card and this modification . It is a very complex system. We recognize that, and that -- but that complex system tells you that there is no place that you can go in this plan, I don't believe, and find one single final design drawing for a given piece of system.

You have to get the rest of the pieces that go with them. That is part of the frustration, I think, that I am sure our staff here felt. I would be surprised if your inspectors didn't feel it. I would be surprised if our regional inspectors didn't feel it.

Somehow we have got to get to the bottom line really -- were there or were there not discrepancies between the two and that ought to be the first situation you try to address. I think you have a program here and I'd like to go on to -- do we buy the action plan or don't we buy the action plan.

MR. GEORGE: I'd like to make one point on the complicated system. The reason the system is complicated is to accommodate modifications to systems. It started out in '72 and with a log with all of the issues obtained down the pike with TMI -- all of the new regs, Comanche has embraced all of those, so that dictated a complicated system.

Ultimately the system will be simplified and all change paper will be posted to drawings, Darrell, and you will be able to take one drawing and deal with that system. Two will be completed without the use of change paper largely because we know what is coming out of us so the system is complicated by necessity for us to complete the plan.

MR. EISENHUT: So what you are asking your inspector to do first is inspect it with no final design -- in one place, (a), and then you are asking the NRC inspector to verify it, that this -- with no final design in one place, that the system is all right, and that is a very difficult thing to do. That is a complicated process.

Different utilities have handled that in different

ways but one approach would be we could say well we can't finish our inspection until you produce the final design.

They were asking for -- they asked for another plan -- what is the final design or inspection reports for a systewm, and it is imcumbent upon the utilities to bring forth whatever information we need to make that decision.

MR. GEORGE: We agree with that.

MR. EISENHUT: I think that is where we are.

MR. GEORGE: And we were lacking in anything you didn't get.

MR. EISENHUT: I don't know how we got -- I mean we may have gotten here by a dozen different ways and -- productively we've got to get one with --

MR. CALVO: That was the original request -- we said that you must inspect all the terminations because one of the things, one of the complexities -- I think when you get out with SER, you are going to have some of the flavor of what -- system to make that conclusive, but I guess if you concentrate on the action plan and we can repeat to the action plan, we'll accomplish -- to solving difference between the actual equipment and the actual -- and the drawing.

MR. HUNTER: Darrell, this is Dorland Hunter speaking. To sort of go along with what Darrell is saying. We're having the same problem in Region IV, but here is what we have to see when we go out and look at a drawing. It has

to be shown on that CPR, that control drawing.

I don't care if you have 50 or 70 control drawings or one set of control drawings. It has to say on that drawing this drawing is not accurate without consideration of these activities.

That is what you have got to shoot for. In the end that is where you are going so when you look at these programs look at that because that is what we're going to require you to have in the control room.

If it is temporary mods you may have to note those. If it is ongoing design changes, you'll note those. If it is completed design changes you'll wait for drafting and will redline your drawings.

You'll have to have a program that meets criteria six that says the drawing is at the location to be used and it is accurate without question. If we find problems and we have, then -- but we want you guys to get that flavor. That is what we're looking for.

MR. CALVO: To go back to the action plan, I can give you our comments on it kind of quickly. Again, we issue a request for you to do an -- overwhelming verification of all these terminations against the drawing.

We're willing to accept what you propose but under certain conditions. Again, we're using this mil standard again and I am -- I'd like to be sure -- what I

had said before. I'd like to be sure that the sample -- it is a random sample, and I want to know what the pieces of equipment you had selected in the random sample -- I want to know how they sample, with respect to how many terminations do you have and whether the rejection and the acceptability superior, and I guess the root cause if you find some kind of a problem and also for what are the criteria for you to go to the expanded sample in case you found some kind of a problem.

I think that will amplify our sentiments, okay. Keep in mind that those systems are very contiguous to a -- that is the one where the random sample should be concentrated if you can.

Now also another thing I'd like to know so that we can resolve these drawing problems -- I'd like to know the drawings that you use, for the terminations to be simple. I'd like to be identified with the revisions and all the information -- so the reason we got an appointment with the -- so everybody else will know what to independently evaluate after you finish.

Okay. Also, again we've had a comment that you are going to -- potential problematic QA/QC concern about the drawings the some kind of way to -- complicate feedback in here later, but we don't know if we want to know that -- how the QA/QC things work.

Also, the acceptable conditions that are stated in Section 4AA and 4B -- when you are talking about interchange -- collections to a terminal point, electrically common to that as specified.

From the standpoint of compatibility we agree with you. From the standpoint of making future changes, and you are making a lot as indicated with these drawings -- put in their log and their collection -- they are not showing that in the drawing and that is the way. When you are going to make another change, you may make a mistake in there so I think we don't accept that "A" as a basis for acceptability when you go to this comparison.

Plan B -- when you say they interchange police to terminations -- they collect contacts -- all of the devices that have no polarity requirement -- that also is important. If I can collect the relay backwards and then have them put that in the drawing, when I collect that, it is supposed to be closely or -- I also have some problem in support of making changes so we will not accept that as acceptability as part of your criteria.

Now insofar as the last one, we accepted that one on the basis that the use of cable conductors or size larger than specified, that is okay as long as we can assure that a good connection can be made.

I am saying only -- you can save it for later, only

you have got some arguments why you feel that "A" and "B" should be considered as part of your acceptance material. We feel that it should not be -- I think it still goes back to the question that the drawings doesn't check with the actual equipment and when you made changes, it is important where those -- the polarity of changes on simple compatibility is important to know whether things are in the drawings.

MR. SPENCE: Perhaps a more efficient way to detect that is -- or to respond to it is to take under advisement here and --

MR. CALVO: Okay.

MR. SPENCE: Our team leader get back with your team and they can talk about it right away.

MR. CALVO: Very well.

MR. EISENHUT: It has become obvious to me on a number of these details that what we're going to have to do -- there are important details. What we're going to have to do is continue a dialogue and the detail of the items, each of the items with the appropriate team people.

MR. CALVO: That's my comment.

MR. POPPLEWELL: The next item concerns performance -- vendor-installed terminal lugs. The NRC found that certain nonconformance supports concerning vendor lugs be improperly closed. They wish to have those nonconformance reports reevaluated and redispositioned -- excuse me -- they

wish that the reevaluation and redisposition of all NCR as related to vendor lugs be reworked.

Our action is that we will disposition nonconformance regarding the bent lugs and they will be -- we will review those and there will be new ---

The background is there for clarification and is in no way meant to be a --

(Laughter.)

MR. CALVO: I am not going to let you win that one.

(Laughter.)

MR. CALVO: Not on that one. I think that your action plan should consider all -- twisted in excess of 60 degrees. That is to the disposition.

MR. POPPLEWELL: That's correct.

MR. CALVO: All of them.

MR. POPPLEWELL: That's correct. That is what we're saying.

MR. CALVO: I guess it would be hard for you to know -- the NCR form is that the lugs are determined and then meaning too that -- do not force the equipment to this problem -- would also be included in the action plan. That was the -- from the actual specifics of the concern. If we can get the SER out to you before you give us the actual plan back to us, then we will pick up those things in there.

MR. POPPLEWELL: The next issue has to do with separation criteria for flexible conduits and flexible conduit as found in the main control boards, associated with safety-laid cables. The action required by -- specified by the NRC will reinspect the panels, containing the safety laid cables and correcting violations or provide analysis showing the flexible conduit is an acceptable barrier.

MR. CALVO: Again, just for the record, regulatory guide 175 which involves extra policing -- 288 -- 1974 -- allows you -- in those cases where you have already allowed for separation of material -- you must do analysis -- demonstrate the adequacy of different size -- the installation of that.

That analysis includes testing so I am sure when you consider analysis to all in accordance with the requirements, you must consider accepting -- demonstrate the acceptability of that particular conduit as a barrier.

While you are doing that testing, consider the acceptability of redundant flexible conduits in contact with each other because we did find our -- those things to be in contact with each other.

The only point I make is -- as long as the standard allows you to get around this, but the acceptability of the installation -- the testing -- through analysis -- that analysis includes testing so I am sure -- I remind you

when you come out with that action plan that includes analysis be sure that you acceptance is associated with testing.

MR. POPPLEWELL: Our action plan does include --

MR. CALVO: Yes, infers that.

MR. POPPLEWELL: Any questions?

The second issue concerning separation is similar and we're talking about flexible conduits to cable and free air which were described by the report.

The action that was specified was again similar -- that we should inspect and correct or provide analysis demonstrating the adequacy of the flexible conduit as a barrier, taking into account testing.

MR. CALVO: In connection with the -- your action plan, you also may want to consider again the flexible conduit and the cables in contact with each other as part of your knowledge. It also -- because if your analysis demonstrates that the flexible conduit is an acceptable barrier then your specifications, your drawings, your procedures and documents shall be corrected accordingly as -- because as it stands right now he says that it is not allowed.

You've got to correct them to indicate now that -- don't follow those things because it is not in accordance with the -- you include in the action plan, at least you have got an understanding of what you're going to do if the

analysis proves to be satisfactory. On the other hand if the analysis proves satisfactory, then you have got to provide for separation criteria, but in this case it would be as much as five inches between the conduit and the cables -- six inches.

(Inaudible question from the audience.)

MR. HUNTER: This is a figure and realizes and you might not want to ever repeat these, but you're going to use the Guide 175 in the future. In other words --

MR. CALVO: No, no.

MR. HUNTER: You do it now, right, and then -- and satisfy that and then for major construction activities, modifications in the future and all your -- you'll not have this problem.

MR. CALVO: But it is their action.

MR. HUNTER: Oh, I see.

MR. CALVO: The requirements allows them to analysis with the separation requirements and the standards are not met.

MR. POPPLEWELL: The next issue concerns conduit cable tray separation in the plant as opposed to bringing it inside the control panel. An analysis substantiating separation criteria between conduit and cable trays was not submitted with NRC.

The requested action was to submit the analysis.

We understood that this had to do with the standard review plan and was not asked for at that time. We will provide the analysis to confirm that the installation is adequate and acceptable.

MR. CALVO: If the FSAR also -- you want to address -- if the FSAR -- as it states -- as it exists today -- does it say anything there that you're meeting this physical separation by analysis instead of by physical -- by the spacial separation. The FSAR should indicate that analysis was used to satisfy the separation requirement.

Based on our cursory review of the FSAR, that aspect was not there, and had it been there, most probably would have asked you for your analysis.

I want to be sure that also the FSAR is amended to reflect that fact.

MR. POPPLEWELL: We will submit the appropriate documents for your review.

The last item that I have is barrier removal inside the main control board. The action specified by the NRC was to replace the barrier and to assure that the redundant field wiring cables found in the area of the barrier meets a minimum separation criteria.

The barrier has been removed. Was removed for purposes of installation or maintenance in the board. The barrier will be replaced and the cables will be reworked.

MR. EISENHUT: From a purely logistics standpoint itis clear that what we're going to have to do is set up a forum for teams to continue the dialogue, I believe, on the rest of these issues because we're basically able today to provide you a lot of feedback on the program plan as to what our reaction is and comments are.

I know we're going to be breaking up we said about 1:00. I do want to plan to give the representative, the intervenors an opportunity to comment today so I would figure maybe the next 15 minutes to -- it's your choice to best weigh to figure out how to use that.

We can embark on another area to historic, to where we go. I think what I would suggest and I mentioned it to Vince Noonan is either here or in Texas next week pick up a meeting to continue to go through the program plan.

I think the best way to do it from the technical review team is item-by-item-by item because obviously they are familiar and you folks are familiar with the details.

I'll leave that to you for your review.

MR. SPENCE: I think that would be an official way to proceed from here. Whether we do it in Texas or here --

MR. EISENHUT: Depends a lot on the logistics of the --

MR. SHAO: Next meeting will be in Texas.

MR. EISENHUT: But I don't think that decision

has to be made right now. Then it would be whatever particular area principally would fall down. How many more items, Jose, in your area?

MR. CALVO: It's one more but I can defer that one to Larry Shao -- analysis of electrical supports.

MR. EISENHUT: Because I was going to say if we can get through at least your item --

MR. CALVO: That one we can postpone until later.

MR. SHAO: That one essentially belongs to me.

MR. CALVO: So we're finished.

QA/QC electrical inspectors --

MR. EISENHUT: So there are two subgroups that are left -- Larry, your subgroup and the timing subgroup.

MR. SPENCE: Let me get some input from my senior review team and see how we can best use the next 15 minutes. We've got one issue --

MR. EISENHUT: Why don't we do this then. We will go ahead and make arrangements to -- I would like to, I think, from a logistics standpoint -- I'd like the staff to work out -- we'll work out with you a schedule whereby we can continue the meeting starting -- proceeding to the issues next week sometime, I'd prefer, because I think there is some need to get on to make sure that if there's any feedback into the program plan, it is at an early time.

MR. SPENCE: Would it be appropriate to suggest

that Mr. Noonon and Mr. Fikar get in touch with each other say on Monday or early next week and arrange a time and a schedule --

MR. EISENHUT: That would be fine.

MR. SPENCE: So we will know who to bring or who to -- how many to accommodate as the case may be.

MR. EISENHUT: Fine. I think that's good.

Let's see. Are there any other staff comments, general or on the areas we've covered? Appreciate you covering them a little bit haphazardly by we're going, but if there's no other -- I wanted to give the representatives of the intervenors today an opportunity to have any comments, constructive feedback, suggestions or whatnot, preferably not whatnot, but Billie Garde is here and he's representing both case and -- I'll give you an opportunity if you'd like to comment.

MS. GARDE: Well, I called you all together today. I didn't take the time as we were going through the items to make a very detailed list so I am going to be giving you basically some general comments.

My biggest concern based on the presentation made by the utilities today is a lack of the independence of the personnel chosen in the senior review team and various issue leaders, which I think is a direct conflict of the type of program you want to undertake to give both the NRC, the

intervenors and the public a lot of assurance in your response to the CRT.

I think it is very inappropriate to choose the same personnel who have been in charge of these areas for basically the life of the construction, and in some cases, frankly are the direct targets of allegations made in the context of harassment and intimidation hearings as being the cause of the problem.

Whether or not that issue is decided in favor of intervenor or in favor of applicants, the idea of spending the time to do the effort that you are doing now and spending that kind of money -- seems to me that a more prudent approach would be to pick people from within TUGCO or outside of TUGCO from an independent consultant who have unquestionable credentials.

I think particularly in the area of protective coatings where we didn't talk about at all today, the choice that you've made is considerably sensitive to the realities of the licensing proceedings.

Second, I think that the methodology presented in dealing with these things in a piecemeal approach falls far short of the type of program that is going to be necessary to put to bed the concept that your plant has not suffered from a major quality assurance breakdown.

I, too, was hardened by Mr. Vega's public

recognition that the project documentation is incredibly complex and often confusing. That is the thing that we have heard from, whistle blowers from people on the staff and people as an argument and a defense for the situation and confusion that both project personnel find as well as the NRC.

I think that recognition of the problem is a big step in the right direction, but it is not -- it's only a beginning and until you can have a final piece of paper that says this is what this table tray should be, this is what the electrical system should be, it is somewhat imprudent to expect the TRT to be expending a lot of time and money and then you all come back with a set of documents that says and this is the real story.

My concern is that everybody is wasting a lot of time and an awful lot of money at a point when that is not appropriate. I don't think based on the evidence that the TRT found that it is a good idea to draw the line and say this is the full magnitude of the problem.

I think if no other lesson at all was learned from Zimmer, it is that you don't draw a line, stop looking at the problems and evaluate it at that point. You have to look at the full scope of the problem.

Now I have a comment which I want to direct specifically to the NRC, and that, I think, is contained in my

letter Mr. Eisenhut, to you, of the last week of September, and that is that my concern about the TRT's effort is that it's continuing to take a piecemeal approach to which the utility isresponding with a piecemeal response as opposed to getting an independent picture of the plant.

The efforts taken by region three at Midland in the diesel generator building inspection revealed things that no whistle blowers, no workers, no intervenors and no NRC inspection had previously identified at the Midland facility.

My concern is that you're going to spend an awful lot of time tracking allegations and that has to be done but that at the end of the tracking of all the allegations, you are still not going to have the answers to the questions -- is this plant completely safe.

I think the electrical area is one that demonstrates those kinds of things.

My biggest concern at this point is that since there has not been an effort to deal with the documentation problem, first, and the documentation provides the basis for what both the applicant and the NRC have got to determine to make determinations of what is correct and incorrect, that the situation, whether it is a month from now or six weeks from now or two months from now is going to be the same.

They're going to find things, and you're going to produce CMCs or DCAs or revised drawings, and you're never

going to have a final story.

I don't think that that is in anyone's interest.

The second comment on Mr. Eisenhut's point was that a basis that has to be approached in each area which is described as a deficiency is the criteria and the acceptability of the criteria that has been accepted by the NRC, that is acceptable industry standards before you go forward to evaluate any specific example.

The separation cables is a good one. If you don't know what is the criteria for separation, what is acceptable, it is going to be pretty dififcult for everybody to decide that if, what you have in place, is, in fact, acceptable.

I worked with Mr. Beck quite a bit on the Midland project and so I know -- at least on one case firsthand that you do have the expertise and the talent among your staff to design the kind of program that even meets intervenors' criticisms, and I certainly don't think that you can design a program that meets all of our criticisms but I do think that you can have one that is acceptable to work with.

I think that has been developed at other plants, and that is possible and I think that is the kind of thing that you should expend your effort on as opposed to having a real -- frankly, as I see it -- kneejerk session where they find problems and you say they're not problems, and they say they are a problem, and we all sit here in these

hot rooms for a long period of time and not get anywhere.

Thank you, Mr. Eisenhut.

MR. EISENHUT: Miss Garde, I will -- we are, in fact, evaluating the program plan, and, in fact, if you or the intervenors would choose to submit any comments to me in writing, any more comments other than what you've given today, you can do that, entertain such comments, but I will need those comments on the program plan no later than the ene of next week.

MISS GARDE: I think we followed the same methodology we did in Midland, and we'll submit a program review of the documents we received today.

MR. EISENHUT: Okay. The -- and as I said the schedule for that though is by the end of next week. I'd appreciate what I can get.

MR. CALVO: Excuse me. To be fair, the intervenors spoken to utilities and the fact that we had to approach it -- a piecemeal approach in the electrical -- it's very hard to say that at this time because I -- nobody had definitive -- what we had done -- safety evaluation reports.

I think when you see it you'll know that we had been all encompassing and I think that that will be the appropriate time when the safety evaluation report comes down -- are at issue, then you will make that determination. It cannot be made today based on the information that is

available to everyone.

MR. EISENHUT: That's right. As one or two last comments I want to ask Bob Martin who as we mentioned in the beginning is -- took over this week as regional administrator in Region IV and Vince Noonan, if you folks have any comments, observations that you'd like to make?

MR. MARTIN: This is Bob Martin. The only comment I would hope to make is that you gentlemen avail yourselves of the documentation from the EDO which further clarifies the working relationship which will exist between Mr. Noonan and myself, and I am sure I am speaking for Vince but I am certainly speaking for myself, I certainly expect the Region IV staff to be working very closely with the TRT so that in information which is exchanged between the utility and Region IV, you can be well aware of the fact that the TRT and the NRR staff will be fully informed as we will be on the workings of the TRT and that relationship so that while program implementation might call for documents to come from different places, you will not be dealing with two different organizations I can assure you.

We'll be dealing with one organization as we return somewhat to the more, if you will, normal mode, of the regional responsibilities and the NRR licensing and OELD hearing responsibilities as we somewhat establish more towards the classical relationship between those

organizations during the course of the project of your type.

Therefore, I just wanted to doubly assure you that that close working relationship will continue even thwough I am now starting to assume a fraction of the responsibilities that had been held by the TRT previously.

That is all I have.

MR. NOONAN: I think I endorse what Bob said. We will cooperate with each other. I will talk to Bob on a very frequent basis. I do plan to come down to Texas very shortly and come to the site and visit the site. I have asked my staff to continue on what they're doing to maintain our schedule commitments and while I am trying now to read all this stuff and become familiar with everything.

As I get familiar I will be talking with the people, appropriate people, and like I said I'll be coming down to Texas very shortly.

MR. SPENCE: I'll just close from our side by saying that we appreciate again the opportunity to meet with you and arrange for the meetings between the specific TRT teams and --

MR. EISENHUT: Very good.

MR. SPENCE: We acknowledge the comments and the clarifications that we got today and we'll certainly factor those in to our continuing view of our action plans -- any revisions that are necessary. We'll take those into account

and get those to you.

MR. EISENHUT: Very good. I appreciate everyones' efforts today, coming to the meeting, and going through this in somewhat of a warm room.

So thanks, and we'll continue at a later time.

(Whereupon, the meeting was concluded at 12:44 p.m.)

CERTIFICATE OF PROCEEDINGS:

This is to certify that the attached proceedings,

IN THE MATTER OF:

TUEC MEETING WITH NRC STAFF

DATE: OCTOBER 19, 1984

PLACE: BETHESDA, MARYLAND

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

REPORTER: STEPHEN A. CAIN

SIGNED: Stephen A. Cain

TRANSCRIBER: NEAL R. GROSS

SIGNED: Neal R. Gross

TUEC MEETING WITH NRC STAFF

October 19, 1984

AGENDA

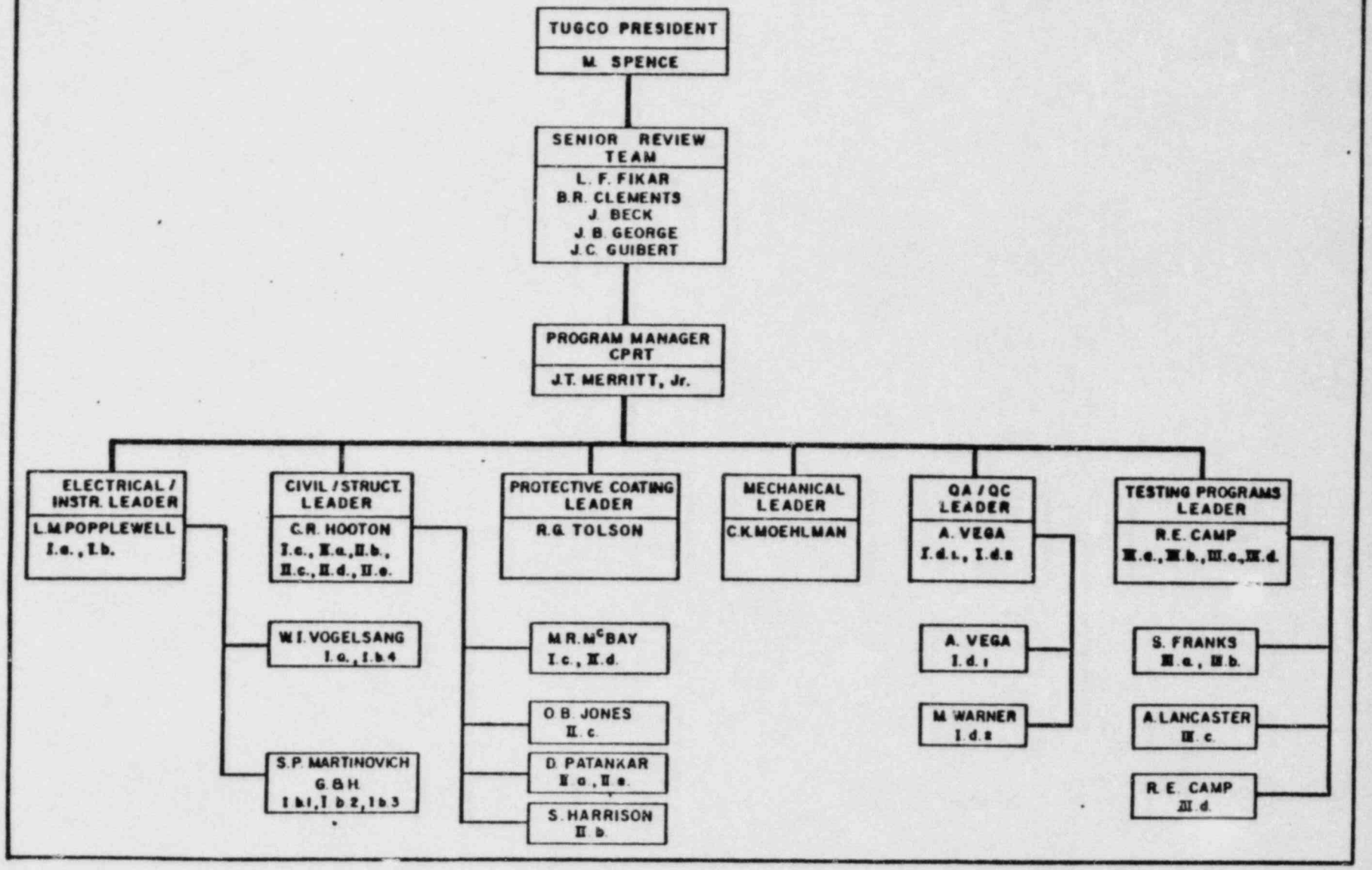
INTRODUCTORY REMARKS	M. D. Spence (MS)
CPRT PROGRAM OVERVIEW	J. T. Merritt (M)
ISSUE-SPECIFIC ACTION PLAN PRESENTATIONS	L. M. Popplewell (P) C. R. Hooton M. R. McPay A. Vega (V) R. E. Camp
SUMMARY	J. T. Merritt
CLOSING REMARKS	M. D. Spence

PROGRAM OVERVIEW

* CPRT ORGANIZATION
* PERSONNEL QUALIFICATIONS
* SUMMARY OF PROGRAM PROCESS
* TYPES OF ACTIVITIES
* PHASED REVIEWS
* SAMPLING TECHNIQUES

COMANCHE PEAK RESPONSE TEAM

(CPRT)



SUMMARY OF PROGRAM PROCESS

1. Receipt of NRC-TRT request for additional information.

2. Preliminary review of issue by CPRT Program Manager, Senior Review Team and appropriate Review Team Leader.

3. Assignment of Issue Coordinator.

4. Obtain additional, clarifying information from NRC-TRT to ensure full understanding of the concern (if necessary).

5. Develop Action Plan to resolve concern using guidance provided in Attachment 2.

6. Action Plan approved by appropriate Review Team Leader, Program Manager and Senior Review Team.

7. Implement Action Plan.

8. Identify root cause and potential generic implications.

9. Concurrence of appropriate Review Team Leader, Program Manager and Senior Review Team in root cause definition and potential generic implications assessment.

10. Develop revised Action Plan (if applicable).

11. Revised Action Plan approved by appropriate Review Team Leader, Program Manager and Senior Review Team (if applicable).

12. Implement Revised Action Plan (if applicable).

13. Develop Action Plan Results Report using guidance provided in Attachment 3.

14. Action Plan Results Report approved by appropriate Review Team Leader, Program Manager and Senior Review Team.

15. Implement necessary additional corrective action (if applicable).

16. Implement necessary corrective action to prevent reoccurrence in the future (if applicable).

17. Assess Action Plan Results Report as part of Collective Significant Evaluation.

18. Implement necessary activities stemming from the Collective Significance Evaluation.

19. Submit Final Report to NRC.

INTRODUCTION OF SPEAKERS

• ELECTRICAL/INSTRUMENTATION LEADER	L. M. POPPLEWELL
• QA/QC LEADER	A. VEGA
- ISSUE I.D.1, I.D.2 COORDINATOR	
• CIVIL/STRUCTURAL LEADER	C. R. HOOTON
- ISSUE Ic, IID COORDINATOR	M. R. MCBAY
• TESTING PROGRAMS LEADER	R. E. CAMP

ITEM I.A.1

HEAT SHRINKABLE CABLE INSULATION

DESCRIPTION OF NRC ISSUE

* CONFUSION AS TO WHEN THE WITNESSING OF INSTALLATION OF HEAT SHRINKABLE SLEEVES WAS TO BE DOCUMENTED

ACTION SPECIFIED BY NRC

* CLARIFICATION OF PROCEDURAL REQUIREMENTS
* ADDITIONAL INSPECTOR TRAINING
* ASSURANCE THAT SLEEVES ARE INSTALLED WHERE REQUIRED

ITEM I.A.1

BACKGROUND

- IRs do not consistently indicate witnessing of installation as an attribute
- Possible uncertainty exists as to when documentation is required
- No instances observed where sleeves were required and were not addressed by inspection reports

TUEC ACTION

- Revise installation procedure
- Revise inspection procedure
- Train and certify inspectors
- Initiate inspection sampling program to assure sleeves are properly installed

ITEM I.A.2

INSPECTION REPORTS ON BUTT SPLICES

DESCRIPTION OF NRC ISSUE

- LACK OF DOCUMENTATION OF BUTT SPLICE INSPECTIONS
- SEVERAL SPECIFIC EXAMPLES CITED

ACTION SPECIFIED BY NRC

- ASSURE THAT REQUIRED INSPECTIONS HAVE BEEN PERFORMED AND DOCUMENTED
- VERIFY THAT BUTT SPLICES ARE IDENTIFIED ON DRAWINGS
- VERIFY THAT BUTT SPLICES ARE IDENTIFIED WITHIN THE APPROPRIATE PANELS

ITEM I.A.2

BACKGROUND

* ADDITIONAL INSPECTION REPORTS REVIEWED
* REQUIRED INSPECTIONS WERE DOCUMENTED

TUEC ACTION

* PHASE I
  - REVIEW ALL INSPECTION REPORTS FOR THE 12 CABLES REVIEWED BY TRT
  - REVIEW 12 ADDITIONAL CABLES
  - IF DOCUMENTATION EXISTS, CLOSE REPORT

ITEM I.A.2

TUEC ACTION (CONTINUED)

* PHASE II - FURTHER REVIEW IF PHASE I DOES NOT CLOSE ISSUE
  - REVIEW DRAWINGS AND DESIGN CHANGES SHOWING SPLICES
  - INSPECT TO ASSURE THAT ALL BUTT SPLICES ARE PROPERLY INSTALLED IN APPROPRIATE PANELS

ITEM I.A.3

BUTT SPLICE QUALIFICATION

DESCRIPTION OF NRC ISSUE

* Lack of splice qualification requirements
* Verification of operability of circuits in which splices occur

ACTION SPECIFIED BY NRC

* Develop procedures to assure qualification to service conditions
* Assure that splices are not located adjacent to each other

ITEM I.A.3

BACKGROUND

* INSTALLATION PROCEDURES DO NOT ADDRESS OPERABILITY OF CIRCUITS WITH SPLICES
* - START-UP AND TEST PROGRAM ADDRESSES CIRCUIT OPERABILITY
* INSTALLATION PROCEDURES DO NOT ADDRESS QUALIFICATION OF SPLICES FOR SERVICE CONDITIONS
  - MILD ENVIRONMENT CONDITIONS
  - SAME CONSTRUCTION AS TERMINAL LUGS
  - LOW POWER APPLICATIONS AS PER FSAR
* NEW CRITERIA IN SER FOR FSAR AMENDMENT 44
  - REQUIREMENT TO STAGGER SPLICES

TUEC ACTION

* CONTINUITY CHECK TO BE ADDED TO CONSTRUCTION INSTALLATION PROCEDURE
* QUALIFICATION DOCUMENTATION WILL BE DEVELOPED
* INSPECTIONS WILL BE PERFORMED TO ASSURE SPLICES ARE APPROPRIATELY STAGGERED

ITEM I.A.4

AGREEMENT BETWEEN DRAWINGS AND FIELD TERMINATIONS

DESCRIPTION OF NRC ISSUE

* PHYSICAL LOCATION OF SELECTED CABLE TERMINATIONS DID NOT AGREE WITH DRAWINGS

ACTION SPECIFIED BY NRC

* INSPECT ALL SAFETY-RELATED TERMINATIONS
  - IN CABLE SPREAD ROOM CABINETS
  - IN CONTROL ROOM CABINETS
* VERIFY LOCATIONS ARE ACCURATELY DEPICTED ON THE DRAWINGS

ITEM I.A.4

BACKGROUND

* NRC SELECTED CABLES REVIEWED
  - DESIGN CHANGES REVIEWED
  - TEMPORARY MODIFICATIONS REVIEWED
* FINDING
  - ISSUES HAVE NO ADVERSE SAFETY SIGNIFICANCE

TUEC ACTION

* CONDUCT SAMPLE INSPECTION OF 500 SAFETY-RELATED TERMINATIONS
* REVIEW DRAWINGS FOR ACCURATE INCORPORATION OF DESIGN CHANGES
* RECONCILE DIFFERENCES, IF ANY, BETWEEN INSPECTION AND DRAWING REVIEW
* EXPAND SAMPLE AS NECESSARY IF ACCEPTANCE CRITERIA IS NOT ACHIEVED

ITEM I.A.5

NCR's ON VENDOR-INSTALLED AMP TERMINAL LUGS

DESCRIPTION OF NRC ISSUE

* NONCONFORMANCE REPORTS CONCERNING VENDOR LUGS IMPROPERLY CLOSED

ACTION SPECIFIED BY NRC

* REEVALUATE AND REDISPOSITION ALL NCR'S RELATED TO VENDOR LUGS

ITEM I.A.5

BACKGROUND

* Equipment involved from 2 vendors
  - GE
  - ITT Gould-Brown Boveri
* Lug vendor contacted in 1981 and in April 1984
* Lug vendor gave specific criteria
* Nonconformances dispositioned using vendor criteria

TUEC ACTION

* All dispositioned nonconformances regarding bent lugs will be reevaluated

ITEM I.B.1

FLEXIBLE TO FLEXIBLE CONDUIT SEPARATION

DESCRIPTION OF NRC ISSUE

* MINIMUM SEPARATION REQUIREMENTS NOT MET
  - MAIN CONTROL BOARDS
  - SAFETY-RELATED CABLES WITHIN FLEXIBLE CONDUITS

ACTION SPECIFIED BY NRC

* REINSPECT ALL PANELS CONTAINING REDUNDANT SAFETY-RELATED CABLES AND CORRECT ANY VIOLATIONS

OR

* PROVIDE ANALYSIS SHOWING THAT THE FLEXIBLE CONDUIT IS ACCEPTABLE AS A BARRIER

ITEM I.B.1

BACKGROUND

- SWITCH MODULES ON THE MAIN CONTROL BOARD REQUIRE SLACK IN THE CABLES FOR:
  - REMOVAL/REPLACEMENT
  - REMOVAL FOR TESTING
  - REMOVAL FOR ADJUSTMENT ,
- FLEXIBLE METAL CONDUITS USED TO PROVIDE APPROPRIATE SEPARATION
- SUFFICIENT DOCUMENTATION DOES NOT EXIST QUALIFYING THE FLEXIBLE CONDUIT AS A BARRIER

TUEC ACTION

- PROVIDE SUFFICIENT DOCUMENTATION, INCLUDING ANALYSES, NECESSARY TO QUALIFY THE FLEXIBLE CONDUIT AS A BARRIER

ITEM I.B.2

FLEXIBLE CONDUIT TO CABLE SEPARATION

DESCRIPTION OF NRC ISSUE

* MINIMUM SEPARATION CRITERIA NOT MET IN MAIN CONTROL PANEL BETWEEN:
  - SAFETY-RELATED CABLES AND SAFETY-RELATED CABLES WITHIN FLEXIBLE CONDUIT
  - SAFETY-RELATED CABLES WITHIN FLEXIBLE CONDUITS AND NON-SAFETY-RELATED CABLES
  - SAFETY-RELATED CABLES AND NON-SAFETY-RELATED CABLES

ITEM I.B.2

ACTION SPECIFIED BY NRC

* REINSPECT ALL PANELS CONTAINING SEPARATE CABLES AND CABLES WITHIN FLEXIBLE CONDUIT AND CORRECT ANY VIOLATIONS

OR

* PROVIDE ANALYSIS DEMONSTRATING THE ADEQUACY OF THE FLEXIBLE CONDUIT AS A BARRIER

ITEM I.B.2

BACKGROUND

- ISSUE CONCERNS CABLE IN FREE AIR TO FLEXIBLE CONDUIT SEPARATION

TUEC ACTION

- PROVIDE ANALYSIS TO CONFIRM THAT INSTALLATION IS ADEQUATE AND ACCEPTABLE

ITEM I.B.3

CONDUIT TO CABLE TRAY SEPARATION

DESCRIPTION OF CONCERN

* ANALYSIS SUBSTANTIATING SEPARATION BETWEEN CONDUIT AND CABLE TRAYS HAS NOT BEEN SUBMITTED TO NRC

ACTION SPECIFIED BY NRC

* SUBMIT ANALYSIS

ITEM I.B.3

BACKGROUND

- Separation criteria based on IEEE 384-1974 and Reg. Guide 1.75 (Rev. 1-1975)
- Documents exist within Gibbs & Hill substantiating the separation criteria
- Criteria were not submitted for NRC review

TUEC ACTION

- Submit Gibbs & Hill documents
- Submit Sandia Report

ITEM I.B.4

BARRIER REMOVAL

DESCRIPTION OF NRC ISSUE

* CERTAIN BARRIER MATERIAL IN MAIN CONTROL BOARD HAD BEEN REMOVED

ACTION SPECIFIED BY NRC

* REPLACE THE BARRIER MATERIAL
* ASSURE THAT REDUNDANT FIELD WIRING MEETS MINIMUM SEPARATION CRITERIA

ITEM I.B.4

BACKGROUND

- VENDOR-SUPPLIED BARRIER MATERIAL HAD BEEN REMOVED

TUEC ACTION

- REPLACE BARRIER MATERIAL
- REWORK CABLES TO RESOLVE SEPARATION CRITERIA DEVIATIONS

ITEM I.c

ELECTRICAL CONDUIT SUPPORTS

DESCRIPTION OF NRC ISSUE

- NON-SAFETY-RELATED CONDUITS OF ALL SIZES WERE OBSERVED IN SELECTED SEISMIC CATEGORY I AREAS WHICH DID NOT APPEAR TO BE SEISMICALLY SUPPORTED
- SUPPORT INSTALLATION FOR NON-SAFETY-RELATED CONDUITS LESS THAN OR EQUAL TO 2 INCHES IN DIAMETER APPEARED INCONSISTENT WITH SEISMIC REQUIREMENTS
- COMPLIANCE WITH REG. GUIDE 1.29 AND FSAR SECTION 3.7B.2.8 IS REQUIRED WHICH DEFINES THAT NON-SEISMIC ITEMS SHOULD BE DESIGNED SUCH THAT THEIR FAILURE WILL NOT ADVERSELY AFFECT THE FUNCTION OF SAFETY-RELATED COMPONENTS

ITEM I.c

ACTION SPECIFIED BY NRC

* PROVIDE THE RESULTS OF SEISMIC ANALYSIS WHICH DEMONSTRATE THAT ALL NON-SAFETY-RELATED CONDUITS AND THEIR SUPPORT SYSTEMS, SATISFY THE PROVISIONS OF REG. GUIDE 1.29 AND FSAR SECTION 3.7.B.2.8.

* VERIFY THAT NON-SAFETY-RELATED CONDUITS LESS THAN OR EQUAL TO 2 INCHES IN DIAMETER, NOT INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF REG. GUIDE 1.29, SATISFY APPLICABLE DESIGN REQUIREMENTS.

ITEM I.c

BACKGROUND

* SEISMIC SUPPORT WAS PROVIDED FOR NON-SAFETY-RELATED CONDUIT GREATER THAN 2 INCHES IN DIAMETER FOR AREAS OF CATEGORY I STRUCTURES WHICH CONTAINED SAFETY-RELATED EQUIPMENT

* IN AREAS OF CATEGORY I STRUCTURES WHICH CONTAINED LIMITED QUANTITIES OF SAFETY-RELATED SYSTEMS, ALL NON-SAFETY-RELATED CONDUIT, GREATER THAN 2 INCHES IN DIAMETER, WAS NON-SEISMICALLY SUPPORTED AND WAS EVALUATED BY THE DAMAGE STUDY GROUP AND SEISMIC RESTRAINT PROVIDED IF IT WAS DETERMINED THAT THEIR FAILURE WOULD BE DETRIMENTAL TO SAFETY-RELATED SYSTEMS

* NON-SAFETY-RELATED CONDUIT 2 INCHES OR LESS IN DIAMETER WAS NOT INCLUDED IN OUR SEISMIC SUPPORT PROGRAM OR DAMAGE STUDY EVALUATION BECAUSE OF THE FOLLOWING:

  - SMALL MASS
  - LIMITED SPANS BETWEEN SUPPORTS
  - TYPICAL SUPPORT DESIGN
  - INTERVENING MEMBERS
  - INTERACTION CRITERIA

ITEM I.c

TUEC ACTION PLAN

- PROVIDE SUMMARY DOCUMENT WHICH DELINEATES THE PHILOSOPHY AND IMPLEMENTATION OF THE DAMAGE STUDY EVALUATION OF NON-SAFETY-RELATED CONDUIT
- PROVIDE SEISMIC ANALYSIS WHICH VERIFIES THE STABILITY DURING AN SSE OF THE 2 INCH AND UNDER DIAMETER CONDUIT WITH THE PRESENT SUPPORT SYSTEM
- FIELD VERIFICATION THROUGH A SAMPLING PROGRAM OF THE INSTALLED CONDUIT SYSTEM TO VERIFY AS-BUILT CONFORMANCE TO ANALYTICAL ASSUMPTIONS

ITEM I.D.1

QC INSPECTOR QUALIFICATIONS

DESCRIPTION OF NRC ISSUE

- LACK OF SUPPORTIVE DOCUMENTATION REGARDING PERSONNEL QUALIFICATIONS IN THE TRAINING AND CERTIFICATION FILES FOR ELECTRICAL QC INSPECTORS

- LACK OF DOCUMENTATION FOR ASSURING THAT REQUIREMENTS FOR ELECTRICAL QC INSPECTOR RECERTIFICATION WERE BEING MET

- 5 SPECIFIC EXAMPLES CITED

ITEM I.D.1

QC INSPECTOR QUALIFICATIONS

ACTION SPECIFIED BY NRC

- TUEC SHALL REVIEW ALL ELECTRICAL QC INSPECTOR TRAINING, QUALIFICATIONS, CERTIFICATION AND RECERTIFICATION FILES AGAINST THE PROJECT REQUIREMENTS

- TUEC SHALL PROVIDE INFORMATION IN A FORM THAT CLEARLY SHOWS THAT THE REQUIREMENTS HAVE BEEN MET BY EACH ELECTRICAL QC INSPECTOR

- IF AN INSPECTOR DOES NOT MEET REQUIREMENTS, TUEC SHALL REVIEW THE RECORDS TO DETERMINE ADEQUACY OF INSPECTIONS AND ASSESS IMPACT ON THE SAFETY OF THE PROJECT

ITEM I.D.1

ADDITIONAL NRC COMMENTS

- IDENTIFIED DEFICIENCIES HAVE GENERIC IMPLICATIONS TO OTHER CONSTRUCTION DISCIPLINES

ITEM I.D.1

BACKGROUND

- CPSES PROJECT REQUIREMENTS ORIGINALLY DERIVED FROM 10CFR50, APPENDIX B
- CPSES PROJECT REQUIREMENT REVISED IN 1981 TO REFLECT SUBSEQUENT COMMITMENT TO ANSI N45.2.6 AND REGULATORY GUIDE 1.58
- CPSES ASME INSPECTORS CERTIFIED UNDER A SEPARATE PROGRAM INDEPENDENTLY REVIEWED BY ASME-AUTHORIZED NUCLEAR INSPECTOR (ANI).
- CPSES QC INSPECTOR CERTIFICATION PROCESS REFLECTS A MORE CONSERVATIVE APPROACH THAN THE COMMON PRACTICE IN THE NUCLEAR INDUSTRY
- TUEC REVIEW OF SPECIFIC EXAMPLES CITED BY NRC-TRT INDICATES THAT SUBJECT INSPECTORS MET PROJECT REQUIREMENTS

ITEM I.D.1

TUEC ACTION

- TUEC IS CONDUCTING AN EXPANDED REVIEW OF QC INSPECTOR CERTIFICATION RECORDS AGAINST PROJECT REQUIREMENTS AND WILL ASSURE THAT TRAINING/CERTIFICATION FILES ARE COMPILED IN A FORMAT THAT CLEARLY AND CONCISELY DEMONSTRATES THAT PROJECT REQUIREMENTS ARE MET

- SCOPE OF REVIEW WILL INCLUDE ALL ELECTRICAL QC INSPECTORS WHO HAVE EVER WORKED AT CPSES AND ALL OTHER QC INSPECTORS (EXCEPT ASME INSPECTORS) CURRENTLY WORKING AT CPSES

ITEM I.D.1

TUEC ACTION (CONTINUED)

- PHASE ONE
  - REVIEW OF ALL AVAILABLE DOCUMENTATION
  - CHECKLIST WITH PREDETERMINED ATTRIBUTES
  - CERTIFICATION SUMMARY FORM
  - PERFORMED BY TUGCO AUDIT GROUP (TAG)

- PHASE TWO
  - EVALUATE CERTIFICATION RECORDS NOT VERIFIED IN PHASE ONE
  - SPECIFIC EVALUATION CRITERIA
  - BASES FOR DECISIONS DOCUMENTED
  - PERFORMED BY SPECIAL EVALUATION TEAM

- PHASE THREE
  - IF INSPECTORS ARE FOUND WHOSE QUALIFICATIONS CANNOT BE DEMONSTRATED, REVIEW OF INSPECTION RECORDS WILL BE PERFORMED TO DETERMINE IMPACT ON SAFETY OF THE PROJECT
  - PERFORMED BY TUGCO QUALITY ENGINEERING

ITEM I.D.2

GUIDELINES FOR ADMINISTRATION OF QC INSPECTOR TESTS

NRC DESCRIPTION OF ISSUE

- LACK OF GUIDELINES AND PROCEDURAL REQUIREMENTS FOR TESTING AND CERTIFYING ELECTRICAL QC INSPECTORS

ACTION SPECIFIED BY NRC

- TUEC SHALL DEVELOP A TESTING PROGRAM FOR ELECTRICAL QC INSPECTORS WHICH PROVIDES ADEQUATE ADMINISTRATIVE GUIDELINES, PROCEDURAL REQUIREMENTS AND TEST FLEXIBILITY TO ASSURE THAT SUITABLE PROFICIENCY IS ACHIEVED AND MAINTAINED

ITEM I.D.2

BACKGROUND

- CURRENT PROCEDURES ALLOW QE PERSONNEL TO DEVELOP TESTS APPROPRIATE TO THE SPECIFIC CIRCUMSTANCES
- ADDITIONAL GUIDELINES WOULD REDUCE POTENTIAL FOR INCONSISTENCIES

TUEC ACTION

- RELEVANT PROCEDURES WILL BE REVIEWED AND APPROPRIATELY REVISED TO PROVIDE MORE DEFINITIVE GUIDELINES
- THESE PROCEDURES PERTAIN TO THE TRAINING AND CERTIFICATION OF ALL INSPECTORS
- CERTIFICATION TESTS CURRENTLY IN USE WILL BE REVIEWED AND APPROPRIATELY REVISED TO REFLECT MORE DEFINITIVE GUIDELINES

ITEM NUMBER II.A

REINFORCING STEEL IN REACTOR CAVITY

DESCRIPTION OF ISSUE IDENTIFIED BY NRC

- A PORTION OF THE REINFORCING STEEL WAS OMITTED IN A REACTOR CAVITY CONCRETE WALL PLACEMENT BETWEEN EL. 812'-0" AND EL. 819'-0 1/2"

ACTION SPECIFIED BY NRC

- TUEC SHALL PROVIDE AN ANALYSIS VERIFYING THE ADEQUACY OF THE AS-BUILT CONDITION
- THE ANALYSIS SHALL CONSIDER ALL REQUIRED LOAD COMBINATIONS

ITEM NUMBER II.A

BACKGROUND

- INVESTIGATED DOCUMENTED OCCURRENCE OF REINFORCING STEEL OMITTED FROM A UNIT #1 REACTOR CAVITY CONCRETE PLACEMENT.
- REINFORCEMENT INSTALLED PER REVISION 2.
- REVISION 3 ISSUED AFTER CONCRETE PLACEMENT ADDING REINFORCEMENT.
- REINFORCEMENT ADDED AS A PRECAUTION AGAINST CRACKING OF CONCRETE WHICH MIGHT OCCUR IN THE VICINITY OF THE NEUTRON DETECTOR TUBES SHOULD A LOSS OF COOLANT ACCIDENT OCCUR.
- BROWN & ROOT ISSUED NON CONFORMANCE REPORT CP-77-6.
- GIBBS & HILL EVALUATION INDICATED OMISSION DID NOT IMPAIR INTEGRITY OF THE STRUCTURE.
- REVISION 4 ISSUED TO PLACE A PORTION OF THE REINFORCEMENT IN THE NEXT CONCRETE PLACEMENT.
- TRT REQUESTED DOCUMENTATION OF ANALYSIS PERFORMED SUPPORTING GIBBS & HILL CONCLUSION.

ITEM NUMBER II.A

TUEC ACTION PLAN

* AN ANALYSIS OF "AS-BUILT" REACTOR WALL WILL BE PERFORMED. AN ANALYSIS WILL BE PERFORMED TO DETERMINE WHETHER THE STRUCTURAL INTEGRITY OF WALL IS COMPROMISED.

* GIBBS & HILL WILL PERFORM THE ANALYSIS AND DESIGN REVIEW THE CALCULATIONS.

* AN EXTERNAL ORGANIZATION WILL PERFORM ADDITIONAL DESIGN REVIEW OF CALCULATIONS.

* EXPANDED REVIEW OF ALL INSTANCES OF REBAR OMISSIONS WILL BE PERFORMED TO CONFIRM THAT IN EVERY SUCH CASE PROPER ENGINEERING EVALUATION AND DOCUMENTATION DOES EXIST.

ITEM II.B

CONCRETE COMPRESSIVE STRENGTH

NRC DESCRIPTION OF ISSUE

* ALLEGATION OF FALSIFICATION OF CONCRETE COMPRESSIVE STRENGTH TEST RESULTS COULD NOT BE PROVEN VALID OR INVALID

* CONCRETE STRENGTH LOWER THAN THAT SPECIFIED IN THE DESIGN MAY REDUCE THE LOAD RESISTING CAPACITY OF STRUCTURES

ACTION SPECIFIED BY NRC

* TUEC SHOULD DETERMINE AREAS WHERE CONCRETE WAS PLACED BETWEEN JANUARY 1976 AND FEBRUARY 1977 AND PROVIDE A PROGRAM TO ASSURE ACCEPTABLE CONCRETE STRENGTH

* TEST PROGRAM TO INCLUDE RANDOM SCHMIDT HAMMER TEST ON CONCRETE IN AREAS WHERE SAFETY IS CRITICAL

* ADDITIONAL SCHMIDT HAMMER TEST ON CONCRETE NOT WITHIN THIS SPECIFIED TIME FRAME

* COMPARISON OF THE TEST RESULTS TO DETERMINE IF ANY SIGNIFICANT VARIANCE IN STRENGTH OCCURS

ITEM II.B

BACKGROUND

* Alledged falsification of compressive strength test
* NRC Region IV investigated
* Other allegations
  - Air Content
  - Slump
  - Deficient aggregate grading
  - Concrete in the mixer too long
* Preponderance of evidence suggests falsification did not occur
* Matter cannot be resolved based on prior compressive strength tests if doubt exists due to falsification
* Need confirmatory evidence on test results

ITEM II.B

TUEC ACTION PLAN

* SCHMIDT (REBOUND) HAMMER TEST, A NON-DESTRUCTIVE TEST, WILL BE PERFORMED AS REQUESTED BY TRT

* 327 PLACEMENTS IN CATEGORY I - SAFETY-RELATED STRUCTURES DURING TIME FRAME IN QUESTION

* 50 TESTS TO BE PERFORMED

* 50 TESTS OUTSIDE TIME FRAME IN QUESTION

* STATISTICAL ANALYSIS TO DETERMINE IF A SIGNIFICANT VARIANCE EXISTS BETWEEN THE TWO DATA SETS

ITEM II.c

MAINTENANCE OF AIR GAP BETWEEN CONCRETE STRUCTURES

NRC DESCRIPTION OF ISSUE

* ADEQUACY OF THE AIR GAP COULD NOT BE DETERMINED SINCE:
  - AVAILABLE DOCUMENTATION DID NOT PROVIDE LOCATION OR EXTENT OF REMIANING DEBRIS.
  - ADDITIONAL SITE FIELD INVESTIGATIONS WERE NOT DOCUMENTED ON PERMANENT RECORDS.
  - PERMANENT INSTALLATION OF ELASTIC JOINT FILLER HAD NOT BEEN SHOWN TO BE CONSISTENT WITH SEISMIC ANALYSIS ASSUMPTIONS AND DYNAMIC MODELS USED TO ANALYZE THE BUILDINGS.

ACTION SPECIFIED BY NRC

* PERFORM INSPECTION OF THE AS-BUILT CONDITION TO CONFIRM THAT ADEQUATE SEPARATION FOR ALL SEISMIC CATEGORY I STRUCTURES HAS BEEN PROVIDED.

* PROVIDE RESULTS OF ANALYSES FOR ACCEPTANCE OF ELASTIC JOINT FILLER AND DEBRIS BETWEEN CONCRETE STRUCTURES CONSIDERING CHANGES IN SEISMIC RESPONSE OR DYNAMIC RESPONSE CHARACTERISTICS OF THE CATEGORY I STRUCTURES, COMPONENTS AND PIPING WHEN COMPARED WITH THE RESULTS OF THE ORIGINAL ANALYSES.

ITEM II.c

BACKGROUND

* Separation between Category I structures is required in the FSAR to prevent unacceptable seismic interaction during an SSE
* Elastic joint filler "Rotofoam" used until October 1977
* After removal - other forming techniques used
* Concrete Pre-Placement Inspections documented Air Gap was per design requirements
* Post construction inspections did not document cleanliness of the Air Gap

ITEM II.c

TUEC ACTION PLAN

* QC INSPECTION OF AIR GAP BETWEEN CATEGORY I STRUCTURES AND CATEGORY I AND NON-CATEGORY I STRUCTURES WILL BE REPERFORMED AND DOCUMENTED

* ANY DEBRIS ENCOUNTERED MAY BE REMOVED AFTER DOCUMENTATION BY QC

* ENGINEERING EVALUATION OF DOCUMENTED INSPECTIONS FOR IMPACT ON SEISMIC AND DYNAMIC RESPONSES

* IF APPROPRIATE, FURTHER ENGINEERING ACTIONS WILL BE DETERMINED FOR EVALUATION OF IMPACT ON COMPONENTS AND PIPING

* REMOVE ANY DEBRIS WHICH SIGNIFICANTLY AFFECTS THE ORIGINAL DESIGN CALCULATIONS

* REVIEW PROJECT PROCEDURES FOR ESTABLISHMENT OF REQUIREMENTS FOR MAINTENANCE OF ADEQUATE SEPARATION CONDITIONS

* EVALUATE NEED FOR FSAR UPDATE BASED ON AS-BUILT CONDITIONS

ITEM II.E

REBAR IN FUEL HANDLING BUILDING

DESCRIPTION OF ISSUE IDENTIFIED BY NRC

* UNAUTHORIZED CUTTING OF REBAR ASSOCIATED WITH THE INSTALLATION OF THE TROLLEY PROCESS AISLE RAILS IN THE FUEL HANDLING BUILDING MAY HAVE OCCURRED.

* LOSS OF THE REBAR MAY REDUCE THE LOAD RESISTING CAPACITY OF THE CONCRETE FLOOR SLAB.

ACTION SPECIFIED BY NRC

* TUEC SHALL PROVIDE INFORMATION TO DEMONSTRATE THAT ONLY #18 REBAR IN 1ST LAYER WAS CUT,

OR

* PROVIDE DESIGN CALCULATIONS TO DEMONSTRATE THAT STRUCTURAL INTEGRITY IS MAINTAINED EVEN IF #18 REBARS IN BOTH 1ST AND 3RD LAYERS WERE CUT.

ITEM II.E

TUEC ACTION PLAN

* DESIGN CALCULATIONS WILL BE PERFORMED TO DETERMINE STRUCTURAL ADEQUACY OF SLAB EVEN IF 1-#18 IN 1ST AND 3RD LAYER IS CUT.

* A REVIEW OF THE PROGRAMS CONTROLLING REBAR CUTTING WILL BE PERFORMED.

ITEM II.D

SEISMIC DESIGN OF CONTROL ROOM CEILING ELEMENTS

NRC DESCRIPTION OF ISSUE

- REVIEW OF THE CONTROL ROOM CEILING REVEALED THAT ARCHITECTURAL INSTALLATIONS EXISTED THAT WERE NOT SEISMICALLY SUPPORTED.
- NON-SAFETY CONDUIT 2 INCHES AND UNDER IN DIAMETER WAS ABOVE THE CEILING.
- IN ACCORDANCE WITH REG. GUIDE 1.29 AND FSAR SECTION 3.7B.2.8 THE NON-SEISMIC ITEMS SHOULD BE DESIGNED IN SUCH A WAY THAT THEIR FAILURE WOULD NOT ADVERSELY AFFECT THE FUNCTIONS FOR SAFETY-RELATED COMPONENTS OR CAUSE INJURY TO OPERATORS.
- REVIEW OF CALCULATIONS FOR SEISMICALLY RESTRAINED LIGHTING FIXTURES AND SLOPED SUSPENDED CEILINGS DID NOT ACCOUNT FOR POTENTIAL LOADINGS FROM ROTATIONAL INTERACTION BETWEEN CEILING ELEMENTS, NOR WERE SPECIFIC SEISMIC RESPONSE CONDITIONS REVIEWED FOR THE CEILING ELEMENTS.

ITEM II.D

ACTION SPECIFIED BY NRC

- PROVIDE RESULTS OF SEISMIC ANALYSIS WHICH DEMONSTRATES THAT THE NON-SEISMIC ITEMS IN THE CONTROL ROOM (OTHER THAN THE SLOPING SUSPENDED DRYWALL CEILING) SATISFY THE PROVISIONS OF REG. GUIDE 1.29 AND FSAR SECTION 3.7B.2.8.

- PROVIDE AN EVALUATION OF SEISMIC DESIGN ADEQUACY OF SUPPORT SYSTEM FOR LIGHTING FIXTURES AND DRYWALL CEILING WHICH ACCOUNTS FOR PERTINENT FLOOR RESPONSE CHARACTERISTICS.

- PROVIDE VERIFICATION THAT ITEMS NOT INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF REG. GUIDE 1.29 SATISFY APPLICABLE DESIGN REQUIREMENTS.

- PROVIDE RESULTS OF AN ANALYSIS THAT JUSTIFY ADEQUACY OF THE NON-SAFETY CONDUIT WHOSE DIAMETER IS 2 INCHES OR LESS.

- PROVIDE RESULTS OF AN ANALYSIS WHICH DEMONSTRATES THE FOREGOING PROBLEMS ARE NOT APPLICABLE TO OTHER CATEGORY II AND NON-SEISMIC STRUCTURES, SYSTEMS AND COMPONENTS ELSEWHERE IN THE PLANT.

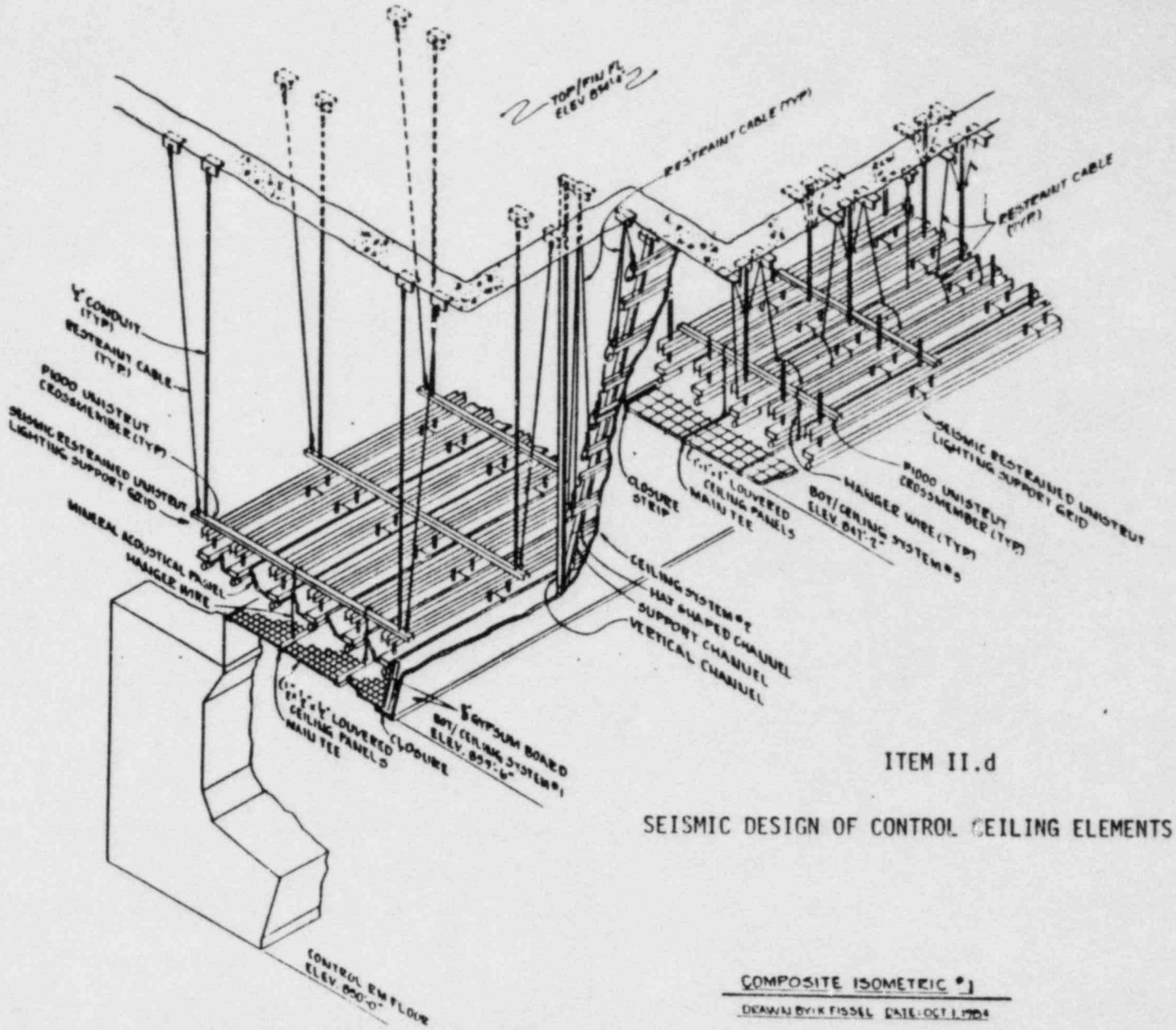
ITEM II.D

BACKGROUND

* DESIGN PHILOSOPHY WAS TO SEISMICALLY RESTRAIN ALL MEMBERS WITH LARGE MASS.

* ARCHITECTURAL FEATURES WITH SMALL MASSES, IF LOCALIZED FAILURE OCCURRED, WOULD NOT BE ADVERSE TO THE OCCUPANTS OF THE CONTROL ROOM.

* WITH THIS PHILOSOPHY, ENGINEERING ADVISED THE DAMAGE STUDY GROUP THAT THE DESIGN WAS IN COMPLIANCE WITH THE INTENT OF REG. GUIDE 1.29 AND NO FURTHER REVIEW WAS REQUIRED.



ITEM II.d

SEISMIC DESIGN OF CONTROL CEILING ELEMENTS

COMPOSITE ISOMETRIC #1

DRAWN BY: K FISSEL DATE: OCT 1, 1984

ITEM II.D

TUEC ACTION

- For the most direct and timely resolution, actions will be taken to preclude any item from falling.
- Seismic analysis will be provided which demonstrates compliance with Reg. Guide 1.29 and FSAR Section 3.7B.2.8.
- Horizontal seismic restraints will be installed to prevent interaction between ceiling systems.
- The drywall ceiling will be replaced to expedite resolution in lieu of verification testing.
- Perform evaluation on individual components of acoustical and louvered ceilings and provide positive attachment if failure is a concern.
- Verification will be performed by quality control on all applicable design requirements.
- Provide summary document which delineates the philosophy and implementation of the damage study evaluations made throughout the plant where potential interactions existed.
- Perform a review of architectural specifications and drawings to confirm that architectural features have been appropriately evaluated in our present damage study program.

HOT FUNCTIONAL TESTING DATA PACKAGES
Issue III.a.1

DESCRIPTION OF CONCERN

- In reviewing test data packages, the TRT found that certain test objectives were not met for at least three Preoperational Hot Functional Tests

ACTIONS SPECIFIED BY NRC

- Review all complete Preoperational Test Data Packages to ensure there are no other instances where test objectives were not met, or prerequisite conditions were not satisfied. The three items identified by the TRT shall be included, along with appropriate justification, in the test deferral packages presented to the NRC

HOT FUNCTIONAL TESTING DATA PACKAGES
Issue III.a.1

DESCRIPTION OF CONCERN

Test	Deficiency
• 1CP-PT-55-05 "Pressurizer Level Control"	A level detector appeared to be out of calibration during the test and was replaced after the test. The approved retest was a cold calibration rather than a test consistent with the original test objective, which was to obtain satisfactory data under hot conditions

BACKGROUND

- 1CP-PT-55-05 "Pressurizer Level Control"
  - Pressurizer level control maintain level in manual and automatic mode

HOT FUNCTIONAL TESTING DATA PACKAGES

ISSUE III.A.1

TUEC ACTION PLAN

* REVIEW EACH TEST IDENTIFIED BY TRT CONCERN
* REVIEW THE SEVEN REMAINING HOT FUNCTIONAL PRE-OPERATIONAL TESTS
* NEED FOR RETESTS TO MEET TEST OBJECTIVES WILL CONSTITUTE A REJECT
* ONE REJECT WILL REQUIRE SAMPLE REVIEW OF REMAINING 136
* IF REVIEW OF FIRST SAMPLE OF 20 REVEALS ONE REJECT, REVIEW ADDITIONAL SAMPLE OF 20
* REVIEW OF SECOND SAMPLE REVEALS ONE REJECT, ALL REMAINING APPROVED TESTS WILL BE REVIEWED

JTG APPROVAL OF TEST DATA

ISSUE III.A.2

DESCRIPTION OF CONCERN

- TO COMPLETE THE PREOPERATIONAL TESTS PROPOSED FOR DEFERRAL AFTER FUEL LOAD, THE JTG, OR SIMILARLY QUALIFIED GROUP, MUST APPROVE THE TEST RESULTS PRIOR TO PROCEEDING TO INITIAL CRITICALITY. THE TRT DID NOT FIND ANY DOCUMENT PROVIDING THAT TUEC IS COMMITTED TO DO THIS

ACTIONS SPECIFIED BY NRC

- TUEC SHALL COMMIT TO HAVING A JTG, OR SIMILARLY QUALIFIED GROUP, REVIEW AND APPROVE POST-FUELING PREOPERATIONAL TEST RESULTS PRIOR TO DECLARING THE SYSTEM OPERABLE IN ACCORDANCE WITH TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS FOR DEFERRED TESTS
Issue III.A.3

DESCRIPTION OF CONCERN

- In order to conduct Preoperational Tests after fuel load, certain technical specification requirements cannot be met, E.G., all snubbers will not be operable since some will not have been tested

ACTIONS SPECIFIED BY NRC

- Evaluate the required plant conditions for deferred Preoperational Tests against the proposed Technical Specification requirements and obtain NRC approval where deviations from the Technical Specifications are necessary

TRACEABILITY OF TEST EQUIPMENT
Issue III.A.4

DESCRIPTION OF CONCERN

- Test data for Thermal Expansion Test did not provide for traceability of temperature measuring instruments in the manner specified by Startup Procedure -7

ACTIONS SPECIFIED BY NRC

- Incorporate the necessary information into test data package

- Establish controls to assure appropriate traceability during future testing

CONTAINMENT INTEGRATED LEAK RATE TESTING
Issue III.B

DESCRIPTION OF CONCERN

- Electrical penetrations isolated during test
- Methodology for calculation of test results not in compliance with FSAR Commitments

ACTIONS SPECIFIED BY NRC

- Identify and justify any other differences as a result of applying ANSI/ANS 56.8 in lieu of ANSI N45.4-1972

  (Required action clarified by NRC letter dated August 27, 1984)

PREREQUISITE TESTING
Issue III.c

DESCRIPTION OF CONCERN

- Initial conditions for Prerequisite Tests verified by craft personnel
- Activity improperly authorized by Startup Management memorandum

ACTIONS SPECIFIED BY NRC

- Rescind Memorandum
- Assure no other memorandum issued in conflict with approved procedures

PREOPERATIONAL TESTING
Issue III.D

DESCRIPTION OF CONCERN

- Current design information not provided to test engineers on a routine, controlled basis

ACTIONS SPECIFIED BY NRC

- Establish measures to provide greater assurance that test engineers are provided with current controlled design information

Meeting Summary Distribution

Docket File
NRC PDR
Local PDR
PRC System
NSIC
LB #1 Reading File
OELD
Project Manager AVietti
M. Rushbrook
R. Hartfield*
OPA*

OTHERS

NRC PARTICIPANTS:

AVietti
David Jeng
RCTang
SBurwell
EPoslusny
BYoungblood
JKopeck
Ward F. Smith
A. R. Johnson
Richard Wessman
Joe Scinto
STreby
R. D. Martin
DGEisenhut
VNoonan
JCalvo
LShao
RKeimig
DHunter
bcc: Applicant & Service List
HDenton
RBangart
CHofmayer
RHefshman

*Caseload Forecast Panel Visits