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VOLUME II

AFTERNOON SESSION

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P R O C E E D I N G S

MR. NOONAN: Let's be seated. We'd like the meeting to begin. I guess we're ready to go back on the record.

MR. BECK: Vince, thank you very much. John Beck again. I'd like to introduce Mr. John Hansel, who is review team leader for the QA/QC area. And also review team leader for the adequacy of construction and QA/QC adequacy self-initiated action on the part of TUGCO and the CPRT.

Mr. Hansel many of you know. I won't belabor too long the fact that he is an eminently qualified expert in the area of quality assurance/quality control, currently serving as president of the American Society for Quality Control.

John has had over 30 years of experience in the QA/QC area. He has lectured around the world on that subject. China and Europe, as well as the United States. He served as a consultant to Baytel on the Ford Foundation -- the Ford Amendment Report. Excuse me.

He also served as a consultant to Commonwealth Edison Company on the Byron and Braewood plant efforts,

insofar as QA/QC was involved.

Without further ado, John, the agenda is yours for the afternoon.

MR. LIVERMORE: Could I ask a question before we get started there?

MR. BECK: Me or John?

MR. LEVIN: I want to pose to Bill Counsil.

MR. LEVIN: One of the things you went through, you talked about your safety ethic or your top management ethic, where management is a state of mind, and you instill safety ethics in all employees.

And you also went on, you talked about the CPRT to charter. It mentions safety. And you talked about FSAR commitments.

And I guess what bothered me, the first -- until about 10:30, I never heard the word quality. And it just bothers me that I didn't hear that at all.

We talk about management ethics, safety ethics. But the word quality didn't slip in there at all. And that was certainly appropriate, I would say.

And I guess what I'd like to do so I don't have any misconceptions, I'd like to get your version on quality and its role in the organization if you wouldn't mind.

MR. COUNSIL: Bill Counsil once again. My views on quality: Number one, I believe that you cannot inspect

quality into a project. And I think I alluded to this this morning in a very short brief I gave you on my safety ethics.

That is, do it right the first time. Have the proper procedures, implement those procedures, and inspect to insure compliance with those procedures. Now I think -- I believe it's Herb? You are -- come from the inspect portion of it, which is quite often a quality assurance/quality control function.

I believe that to insure quality, number one, you have to have a fully qualified line management, and hold the line management responsible for not only construction quality, but quality of operations, once the plant becomes operational.

A staff function is quality assurance and quality control. They insurance the compliance of that organization. If they find deviations in their inspection process, they insure that line management not only corrects it, roots out -- finds the root cause, changes procedures, practices, whatever is required, and then insures after that, that it is being appropriately implemented. Does that answer your question?

MR. LEVIN: Somewhat. I was really waiting to hear that management state of mind of quality, trickle down effect, starting with you at the top.

MR. COUNSIL: Well, I'd say it's not a trickle down effect. It's a rush. I don't believe in doing things part way, or letting it trickle or anything else.

Any NRC people that's sitting in this room that have attended meetings with me, who have heard me before put on presentations at Northeast Utilities, when I have found things wrong and whatever done to correct them, it certainly isn't a trickle down.

And it won't be too long before all employees here at TUGCO know of my attitude and what I believe is safety first.

MR. EISENHUT: In fact, I can speak from experience, here, Bill. Let me make one comment. I was encouraged to hear your first answer that you really don't inspect safety into a plant. And I think that's -- nothing can be farther from the truth. I mean I really strongly believe that myself, and I'm encouraged to hear you say that.

I think what Herb is referring to is, any time you have found an organization that has the right safety ethic, safety approach, it emanates from a few key people in the organization. And I think it's not meant it was trickling down slowly. I don't think that was the point.

MR. LIVERMORE: No.

MR. EISENHUT: It was really, that message permeates the organization and comes from the key players.

And so in that context, I agree with you. Also from knowing you for a number of years, it's more the sledgehammer intimidating approach.

MR. COUNSIL: I wish you wouldn't use the word intimidating approach.

MR. EISENHUT: No. But I do, because there is good intimidation. There is bad intimidation. So -- but it really is intimidation by itself, is not necessarily bad unless it, you know, -- bad intimidation, I guess. But some managers intimidating, I think that is a fact of any basic management.

But I think what we're really looking for, and only time will tell, how fast that approach permeates the entire organization. And I think that's really where Herb is coming from.

MR. COUNSIL: I understand. And I'm doing my darned best to make sure that it does that. People have the attitude -- I do, and I'm sure have a feel for the attitude, I have come that far, Herb.

What I haven't been able to do yet is to insure through meetings with them and other things, that they have, quote, the full safety ethic that I have. Do it

first the right time. Rework costs money. Inspections cost money. Meetings like this cost a lot of money.

And I firmly believe ensuring that the procedures and the programs are right, and then live to them. And that's the message I would hope that we are getting to you today.

MR. LIVERMORE: Thank you.

MR. HANSEL: Thank you, Bill. Just another bit of levity before we get started. Bill came over and said, "John, do you mind if I sit at the front table."

And I said, "Not at all. Just don't intimidate me."

It's been like a breath of fresh air with Bill Counsil hear. We have had nothing but good response. I'll back up what he said. We have had excellent relationships.

Okay. With that, again, as John Beck indicated, my name is John Hansel. I'm the QA/QC review team leader for the CPRT. These are the subjects that I'm going to talk about this afternoon. And hopefully I have put together a presentation that will give you a total understanding of the approach that we're going to take that it is integrated.

And it is well tied together with the other aspects of the CPRT. I'll start out by talking about the

objectives, and then going to talk about the elements of the plan. And we have several of those.

And I will talk about the interrelationships of the various elements between our effort and the efforts of the remainder of the team, and some other TUGCO activities.

I'll talk about our collective evaluation process, root cause generic implication process, trending programs. Talk just a very bit about schedule in our organization. And I'll represent to you what our end products are.

MR. NOONAN: John, I wondered if I could interrupt you just one minute here. In February and March we met with the utility, and we talked about some of these plans. Can you kind of put in prospective where you're at today compared to what you were doing in February, so we will know?

MR. HANSEL: Kind of bring you up from February to now?

MR. NOONAN: Just a little bit.

MR. HANSEL: Of course we received the letter from you folks January the 8th. We did meet in February and talked about the exchange of that.

We met subsequent to that here in Arlington at the Holiday Inn. We're well on our way toward the

investigation of those specific issues that were identified in the January letter. Issues, specific plans have been written. The implementation has started, and in some cases very close to closure.

Likewise, as other SSER 's have come out, we have reviewed those. In fact, to be certain that there were no new issues that were identified in those SSER 's, and where required, we have gone back and issued our modified plans.

Unless you really choose to, I would not want to get back into the specifics of each of those plans today. I can just tell you in general that we're well on the way. We nave conducted some inspections. We have conducted a lot of documentation reviews. We have conducted a number of reviews of procedures.

I had a number of interviews. We have been in the field and looked at the hardware extensively. And we're well along on the initial set of issues that were provided to us.

I'll show you later, Vince, the current list of issues specific action plans that we nave, both in the programmatic area and in the hardware area. If you choose to question of them at that time, I'll be glad to do so.

MR. NOONAN: Okay. That will be fine.

MR. HANSEL: What's our objective? It's our objective to provide reasonable assurance that there are no undetected and uncorrected safety significant deficiencies at the Comanche Peak station.

I'm going to approach that first by talking about the specific external issues. John Beck showed you a list this morning of the sources of those external issues. I will repeat that this afternoon.

We will also go through a root cause and generic implications evaluation on each of those issues to satisfy ourself that, yeah, verily, they have in fact been resolved satisfactorily, and that there are no remaining implications that need to be resolved in respect to those.

We feel that by review of those initial sources that we will have a good level of confidence. That we do not have any undetected safety significant deficiencies in the plant.

We have designed and are well on the way to implementing a self-initiated program of reinspection and documentation reviews that will give us an extra level of confidence. That will extend to the remainder of the plant.

If you would for a moment --

MR. CALVO: Jose Calvo for the NRC. About this

finished program, will we hear about it in detail later on?

MR. HANSEL: Going to talk about it in detail. May want to run me off before the afternoon is over. If you would, for a moment, ignore the cross hatched marks in the first two blocks.

The elements of the plan consist of the first two blocks, which deal with issues identified by external sources. As I indicated, I will show you what those are in a second. We have broken those down into programmatic and hardware issue specifics that we will investigate very thoroughly.

The center block, and let me back up. The first two I'm going to be addressing later on as category 1.

The third block, the center block, deals with a hardware reinspection and documentation review plan. We're going to refer to that as a category 2 issue, specific plan, and that is the self-initiated program.

The fourth block addresses the interface that we will have to the other review team leaders. We have had extensive interface, and will continue to have interface and dialogue, with the other review team leaders in the investigation of any of their specific external issues.

We have conducted inspections for them. We have conducted documented reviews for them. Anything that

they find in the review of their issue plans that indicates that there may be something we need to look at in the QA/QC area, they provide that to us. We either include it within an existing issue plan, or we will create a new one.

By the same token, the information that we gain that may fit into one of their categories, there is a close dialogue. There is an interface established on a case by case basis on each -- each item, be it root cause or generic implication study that we conduct.

The block to the far right deals with other programs, not specifically from external sources. The design adequacy plan is in there. Other inspection activities that have taken place to date on cable tray hangers, as built, these kinds of things we also gather information from those programs.

The two center blocks we'll talk about the collective evaluation process. And we will gather data for two purposes. One is to address the adequacy of the construction QA/QC program. And we will receive input from all of the five sources identified above that feed into that.

The other one that we will address is the adequacy of the installed hardware. And we will again collect data from every source identified above to feed into

that.

From those five sources of data, we will do a collective evaluation, two collective evaluations, to answer those questions. And then finally there will be a summary report put out on our effort.

Next chart. In the first two cross hatched blocks that I talked about are the category one issue specific action plans. And they address the issues that have been and may continue to be identified by external sources.

We are reviewing external source documents, and identifying any item in there that we feel is a concern or a very specific issue that we should address. We have a matrix that we're preparing and maintaining to assure that we have each of those identified and cross tracked to an issue plan or some form of an investigation, if in fact they have not already been closed to the satisfaction of the staff.

MR. SHAO: Are the concerns in SSER number 11, would be in this category?

MR. HANSEL: Yes. SSER 11 and all other SSER 's. The previous letters that we have received, the CAT report, SIT report, Region 4 reports.

In a second, SSER 11 will be included in that review.

MR. CALVO: You also will have the Region 4 inspection report? How far do you go back?

MR. HANSEL: Back to anything that is not closed. Open issues.

MR. CALVO: Go back to the last ten years?

MR. HANSEL: Open issues. Those remain at this time. And any new ones that are received that apply to our effort.

MR. CALVO: Maybe you wait long enough, you know, all the causes, and then you won't have to look --

MR. HANSEL: We're not waiting. It is an ongoing process, and has been for us since last November.

MR. SHAO: In that process, appendix P is new. Have you thought of how to handle this appendix P?

MR. HANSEL: I have reviewed SSER 11. I received it late last Thursday night. I have read it, quite quickly, I might add, because it was preparing for this meeting.

We are conducting a detailed review. And exactly how we will approach appendix P, I'm not certain at this time. We will, however, have that resolved prior to the submission of the program plan and our issue plans that you will soon have, I think John indicated by the end of June.

MR. NOONAN: John, let me ask you a question.

Anything that comes out of your safety --

MR. HANSEL: I'm sorry?

MR. NOONAN: Anything that comes out of the SAFE team work, does that fit into the external sources?

MR. HANSEL: I think that John Beck and Bill Counsil indicated this morning that there may be some spillover into our effort, if in fact it fits into our current scope of work.

I am doing two inspections now at the request of SAFE team, where they have given me some area of concern that they felt needed inspection by an independent party. And we're doing those. That system is working.

MR. EISENHUT: Let me expand that just a little bit. I was thinking of from a little different angle. But that's a different point Vince brought out.

There's been a lot of discussion in the hearing process in the general area of intimidation and harrassment. And there are -- there was quite a number of issues that were identified and questions and concerns.

Without looking at the merits of them one way or the other, is there a vehicle for that kind of concern -- that kind of issue, if there would be considerations also being factored into the program here as another external force, that SAFE team would somehow

factor in? Is there an avenue to permit -- there is evaluations, reports of intimidation and harassment, that turn out indeed to be substantiated.

How do you factor those into the question of, did intimidation affect the overall program conducted at all?

MR. HANSEL: That's a difficult thing to determine. Again, in most of these cases, and we certainly know that there were allegations in this area, It's very difficult to tell, Darrell, if in fact it did have an impact on the hardware.

I have to approach it from two ways. If I were to know of a specific, I would have to look at that specific piece of hardware. And if the hardware were okay, I would draw a conclusion based on that.

One of the reasons for our self-intitiated program, certainly is some of the background information in this area and the concern. Our -- we're going to conduct a sampling reinspection program representing all the hardware, safety related hardware, in the facility.

And hopefully from that we will be able to draw conclusions. We will be able to draw conclusions as to whether or not anything of that nature did in fact have an effect on the hardware. It's a very difficult item to investigate, unless you have a specific -- the best

way I know to attack it is to go on a sampling basis, which was our recommendation.

MR. EISENHUT: Yeah. I appreciate it, even though it's -- well, Counsil and I were commenting, intimidation is a very, very difficult subject, because you can have an intimidating atmosphere or intimidating individuals, and I think -- and even I have been accused of being intimidating by my staff. It's perhaps not necessarily bad, because you're driving to get the job done. You're driving to do it right. You're driving to make sure all safety issues are resolved.

But you at the same time have got to come up with a first where you have specifics you can follow-up to see whether or not there is a -- whether it really materializes.

MR. HANSEL: I can test the hardware by looking at it.

MR. EISENHUT: It's the second tier of that. That is a little more subtle, where you can't really include intimidation one way or the other per se. And it's more of a vague charge that the overall atmosphere is to intimidate and push things along really faster. There's nothing you can really hang on.

And that's why -- I was trying to get a feel for how that information can get back to them, because --

MR. COUNSIL: Could I have that?

Bill Counsil again. I did check at the lunch break that very subject to our corporate general counsel, because I was interested. And I hope I will have some more information for you on that this evening before the close of the day.

But on, specifically, intimidation allegations, to the best of our knowledge, there's been one verified to date, and that has been afforded to the administrative judge. So that that would get into the process. And I understand that there's one other review right now.

MR. EISENHUT: That have the origin in the SAFE team?

MR. COUNSIL: That's correct.

MR. EISENHUT: Okay. And then I was only extending the question very slightly beyond that to say that, in addition to the SAFE team, there was quite a bit of discussion dialogue process, a number of other vehicles for that discussion, that really don't have their origin in SAFE team. And it was the same question I was trying to explore. And I don't know whether there is an avenue, or how to get that other information factored into the overall umbrella either. But I think that's something we're all going to have to continue to look at, is the way to do that.

MR. HANSEL: I wrestle with that one very hard. It's difficult when you're dealing with allegations or intimidation, as to how to research those. And the only proof -- I know what makes me feel better, is if I find the hardware to be right. Then you have to say that the system must have worked, in spite of the harassment and intimidation.

MR. EISENHUT: Yeah. Has the company done anything independent of the CPRT? Bill, I'll direct this to you.

Has the company done anything to -- there's been, over the years, there's been charges of intimidation and harassment. Has the company done anything, what I'll call systematically, before SAFE team, to go back and interview the people? Bring in whoever it would be, a group, whose business it is, so to speak, looking into intimidation?

If there is such a qualified people to look at the subjects and look at all of the sources of charges of intimidation and harassment, and package it up, so to speak, has the company done anything like that?

MR. COUNSIL: Bill Counsil again. I'll take it. As far as that subject is concerned, through the SAFE team effort, we schedule interviews with all employees. Employees who are, quote, being laid off, are also

scheduled in for interview. So, as well as the volunteers, have come under the program. There are scheduled interviews each week. And on our bi-weekly reports, the numbers of personnel who have been interviewed are covered.

By and large what's been occurring on the scheduled interviews and the interviews of people leaving the site so forth, that is, they fall in the no concerns category.

Now as far as how to package all this up, Darrell, I can't answer that right now. I don't honestly know how to package it yet.

MR. EISENHUT: Yeah. And my question went actually a little -- as I understand the SAFE team concept, went into effect, let's say January of this year.

Before that, there was another program. But many of the concerns go back actually, let's say go back years, in fact, because quite a bit of the construction is done much earlier. Many of the people left the project much earlier.

So the best I think you can hope for in those areas, is that there may be identified incidences or charges, ideas, whatever. And I was really more looking pre-SAFE.

I think the approach of the SAFE team is an

approach which strongly has encouraged; undertaken has a means of attacking some of those problems. And the overall effectiveness of an effort like that, we're all still hoping to learn from, by and large, in our entire industry, and the government.

I was really more focusing on those incidences that go back several years, let's say. Spanned a period of time when much of the plant was built, and the personnel moving on to a different facility, different site, or whatever, or out of this, to try to systematically look at that. And of course you are aware we are looking at all of the documented records, and trying to see what it means. And that's why I was asking you about that.

MR. COUNSIL: To the best of my knowledge right now, we have not gotten together an entire program. Somebody can correct me, if possible, in the room. But a counter, systematically to go back before the SAFE team and do this resurrection.

Any open areas, however, are being rolled into these QA/QC issues items that we're looking at. And we are going back and reinspecting hardware. That's as far as I think I can go right now.

MR. EISENHUT: So it would be fair to say, then, in this effort, really between the lines, you have SAFE team. As in other matters, you have other open

intimidation questions as inputs to the program.

MR. COUNSIL: That's correct.

MR. HANSEL: Yes.

MR. CHANDLER: If I can follow-up on what Carl was asking. Larry Chandler. Talking to Bill or John.

Bill, in response to your last comment, John also mentioned going back to look at the hardware, in association with the allegations of harassment and intimidation. Are you also going back and looking at the other QA/QC activities, paper flow, and all of that?

MR. HANSEL: Yes. We're doing a number of procedure reviews. There will be documentation reviews included in the reinspection self-initiated program as well. So, yes, we're looking at it across the board.

Just as a point of interest, Darrell. One of our actions plans deals with exit interviews. And we have talked to those folks, both prior to January, 1985, in that effort. And currently we understand the process and what's happening there. And if we see any need for recommendations to TUGCO, we'll do that as a result of that effort.

MR. CALVO: Quickly, the results for the independent assessment program of CYGNA, do you consider those as external sources or other investigative programs?

MR. HANSEL: Other investigative programs, the far block to the right, other investigative, from my viewpoint.

MR. MARTIN: John, Bob Martin, one more question. Is the -- you described that the open issues remaining in inspection reports, you are factoring in into the program as one of the inputs.

MR. HANSEL: Yes.

MR. MARTIN: Is that consistent with the logic you have used on other documents that have been provided to you?

I think perhaps there have been specific issues in SER 's, SSER 's, in which the safety significance has been dispositioned as the NRC has reviewed it. And said there is no safety significance associated with this. And it may have some QA/QC implications.

If NRC has judged that a specific hardware item deficiency has no safety significance, are you still considering that as an input to your program?

MR. HANSEL: Let me take it this way, Bob. On that individual case, I -- probably not. But I would like, in the collective basis, and if I think there is enough implications of more hardware that could be affected, either in that population of hardware or others, we'll search that out.

The other thing I'll look at is, from the programmatic standpoint, is even though the hardware is okay, there must have been something that caused concern there. Then we'll search out that avenue.

MR. MARTIN: Okay. Would that not then -- or go a similar approach from NRC inspection programs, would not only be the focus of remaining issues which are remaining open, but to look at the significance of issues identified in the inspection program -- in the inspection program, but possibly closed in a prior year, but in fact represent an issue that may be under that kind of an umbrella, would deserve a broader look, rather than not treating it in your current program?

MR. HANSEL: Let me answer that from two standpoints. Excuse me.

We looked at and have reviewed Region 4 reports back, I guess probably close to two and a half, three years, open and closed. I think that the key point, Bob, is that if there were -- let's talk about hardware specific items.

That where you had generic types of problems in the past, that which would also hit a good sizable amount of those in the reinspection effort.

Again, I think when I get to the self-initiated program, you're going to to see that that is broad

enough and all inclusive enough, that we will have touched upon a pretty good sized portion of the plant that should later rest any past concerns, whether open or closed, without going back and re-reviewing and addressing each of those past Region 4 reports, or even other reports from the staff.

MR. NOONAN: Someplace in here, John, we have an SER that we sent to you on the coding area. We said basically that was a non-safety -- paints themselves a non-safety issue. But clearly there are some QA/QC implications in that SER. How is that being affected?

MR. HANSEL: Yes. Well, a couple of places. One is there is a material traceability problem in there. We're going to pick that under the materials traceability issue plan, which we have. Also there is some craft inspection training type of issues. We'll pick -- we're looking at that now.

So even though it's declassified, we're still looking at those, for the implications events on the program, because there was something at one time that caused a problem there, even though it's been declassified.

MR. CHANDLER: Larry Chandler again. You also used the term safety significant. Earlier this morning John

Beck sort of begged off answering my question on that. Are you using the particular definition of the term?

MR. HANSEL: The deficiency that you detect on a piece of hardware will cause that hardware to not perform. It's a safety related function. And that will be looked at on a case by case basis and a collective evaluation.

Okay. Let me move ahead, because I think a lot of these will get answered later.

MR. CALVO: I want to go back to the original report. I don't even guess there is an answer. Are you going to look, going back, are you going to look at the good and the bad, or what the original reports show you? Or where the real report maybe shows some constructions and maybe some designs problems? If you feed it back, are you going to look at it, or not? No use saying the overall program is going to consider. But you are not answering the question. Will you please answer?

MR. HANSEL: I do not plan to go back currently more than two and a half or three years, which I have already done.

MR. CALVO: But the assessment you got over the two and a half, three years, that is going -- it can affect your program here, whatever you learn from those.

MR. HANSEL: Yes. Certainly open items, and something I see in there that may have been reoccurring, and -- or something in question, we'll pick that up.

MR. CALVO: On the cross items, when you look at the cross items, and you figure out that you may have some generic implications, are they reflected to design or reflected back to some other area? The way you're going to look at the PFP SER, you may look at the things that are crossed out, or find them acceptable? Are you going to do the same thing for the inspection reports?

MR. HANSEL: Yes, I think I followed everything you were saying there, but I believe -- yes, yes.

We will look -- let me say it again. We will go back two and half to three years, which we have done. There is indication there, that something was wrong. Something didn't work as planned.

As we're looking at our total program, if we think that we need to look at that area again, we'll do so. Either through a specific action plan or through our self-initiated program.

MR. CALVO: Okay.

MR. HANSEL: Okay. Moving right along. Once that review of external documents is completed, then we're going to group these from external sources into either a programmatic issue plan or a hardware issue plan.

And they will prepare action plans for each of those as we go next time.

The methodology that we're going to follow, number one, is to make sure that we fully understand the issue. And we may have to call people. We have been on the phone with Herb and his folks a number of times, Herb Livermore, to make sure that we fully understand. "What did you see? What did you observe? What procedures were you looking at," where we understand what the issue is.

We'll then go through and select an evaluation approach. I'm going to talk about each of these elements briefly in the next couple of slides. We'll implement that evaluation approach or approaches, evaluate the results, and then provide the data into the collective evaluation process. Next slide.

Currently, this is the list of external sources. I indicated a moment ago that I had done a preliminary review. It's really more than a preliminary. It's rather a detailed of SSER 11. We'll continue to evaluate that, and make certain that we have every concern or issue in there covered. And we are maintaining a matrix of those issues versus certain issue plans. Next chart.

This is a list of the current programmatic issue

plans. They haven't changed much since you saw them last time, except that we moved the fuel pool liner over from a hardware issue to a programmatic issue, and retitled it fuel pool liner documentation.

We'll add to this list as required. Next chart.

MS. AXELRAD: Jane Axelrad, from the office of inspecting and endorsement. Does the intimidation and harassment report fall into the subcategory on any of these issues?

MR. HANSEL: I don't have it specifically listed. What I have done is, I was provided through the attorneys a summary of the harassment and intimidation information. And I have researched myself that list to satisfy myself that each of those items were in fact covered in one of our current issues specific plans. So that's a pretty good summary. I feel that that area has been covered.

MR. CALVO: John, I think your slide on the external sources, there is an error. You indicated he had the CYGNA independent, in spite of external sources. And I believe you indicated that before as part of the overall investigative programs; is that correct?

MR. HANSEL: I'm sorry. I couldn't -- Jose --

MR. CALVO: The external sources program, you --

CYGNA independent sources program, before that you said the CYGNA independent assessment program, you're going to oversee that as part of the overall investigative programs.

MR. HANSEL: Yes.

MR. CALVO: So this is an error here.

MR. HANSEL: No. The primary area that will investigate the CYGNA report is the group, Howard Levin's group, associated with design adequacy. I will only get involved in that if in fact there are QA/QC implications, and not the design program or the design adequacy.

But only those implications in there that might deal with the QA/QC side of that issue. So it does appropriately fit in the far right-hand block for me.

MR. LIVERMORE: John, question. Herb Livermore. Two things come to mind. Your two reinspections you have going on there, the one on the electrical hanger eclipse, and the other one you mentioned this morning, about the pipe hangers. How would that fit in here? They would certainly be under external sources, but I don't see them listed here.

MR. HANSEL: They're not in there specifically, Herb. They have -- well, the cable tray hanger as built program came from Region 4. The pipe support program

came in from where, John? That came to us from?

MR. BECK: A number of sources.

MR. HANSEL: I beg your pardon?

MR. BECK: A number of sources.

MR. HANSEL: A number of different sources. I did not attempt to identify each individual case.

MR. LIVERMORE: You are addressing both of those?

MR. HANSEL: Yes. We're involved with it.

MR. LIVERMORE: They just don't appear here.

MR. HANSEL: They just don't appear here as an external source.

MR. LEVIN: Are there any others that you're addressing here?

MR. HANSEL: Just the hits thing that I have just talked about. We have reviewed that. Nothing else in an external source.

MR. HANSEL: There was a question back here.

MR. BURWELL: Spot Burwell, NRC. Point of clarification, please. The CYGNA revie' included certain aspects of quality control, particularly with the -- for example, in document control. Am I correct in understanding that you will review the observations in this area as far as your program?

MR. HANSEL: Yes. In fact we already are. We have an issue plan on documentation control. Or exists

already, existing or on our way to it.

MR. CALVO: When you submit the final program plan for approval, you, also by June 18th, will you also have with you a listing of all the sources with enough of the specific so that we will understand which external sources you considered? Is that detailed information -- will become available to us so we can ascertain it together?

MR. HANSEL: John, you want to address that?

MR. CALVO: I'm going on the basis that we're going to have the program plan by June 18.

MR. HANSEL: No, no. End of June.

MR. EISENHUT: End of June. June 18 is the meeting on response spectra. End of June --

MR. CALVO: June 18. That's what I said. 18th. Oh, I'm sorry. I missed it by ten days. I'm sorry.

MR. HANSEL: That would be a rough ten days to beat.

MR. CALVO: Yeah, I know.

MR. BECK: Jose, the -- your question, if I understood it. Let me repeat it again, is, will the issue specific action plans indicate which sources of external input are being used in each instance? Is that it? Or will there be a table that covers the whole thing?

MR. CALVO: Right.

MR. BECK: The program plan itself will include in the appendices coverage in general, which specific issues are being addressed as a result of external input. And we have gone over in essence those sources this morning.

MR. CALVO: What I'm missing in here is the fact this is incomplete. You indicated there is not quite all of them there. And I would like to know which ones there aren't. The reason for is, your self-initiated thing is going to implement, supplement, or it's going to see all these things. And I'd like to get an overall idea how all the things --

MR. HANSEL: What he's after, John is a good detailed list of the external sources. And we can provide that.

MR. LANDERS: Yes. I asked the question this morning of John. And I thought he told me that you were going to cover it. And that is, the outstanding issues that are still in the CAL, and how those are going to be factored into your plan, and what part of their external sources or where they fit --

MR. HANSEL: You just gave me a new acronym. CAL?

MR. LANDERS: Comprehensive action list. For example, the value that is still there.

MR. BECK: John, if I could respond. I thought I answered that this morning. Those issues that were in the comprehensive action list that haven't interfaced with CPRT are already directly factored into the CPRT effort. We have not tried to draw a correlation or put a check mark in the right-hand column of CPL open items that CPRT is considering. There are not very many who fit into that category.

MR. LANDERS: We talked this morning, John, about covering an interface between CAL and CPRT. And I'm wondering if the interface is existent in this current program with respect to QA/QC. And I think I'm going to continue to wonder if it is when we get into the design area itself.

MR. BECK: Okay. The point's taken.

MR. HANSEL: Back in the back.

UNIDENTIFIED FEMALE SPEAKER: Are the intimidation and harrassment issues being dealt with purely from a hardware standpoint, or also from a programmatic and management standpoint?

MR. HANSEL: Both. All of the above.

UNIDENTIFIED FEMALE SPEAKER: Pardon me?

MR. HANSEL: All of the above. We're looking at procedures. We're looking at hardware. We're looking at documentation that -- we're covering it all. It's

not just hardware.

UNIDENTIFIED FEMALE SPEAKER: But are you looking at the programmatic or management consideration that could affect that? You have haven't --

MR. HANSEL: I think I know where you're coming from. Again I -- it's management harassment, intimidation. I don't know how to evaluate that, since I wasn't there, unless I can see an impact on the hardware or in the documentation. That's the only thing I can do. I know of no other way to evaluate that. Unless it had an impact on the hardware or the documentation, I don't know how to do it.

Okay. Next chart, John. This is a listing of the current hardware issue plans. I might indicate that there is a significant amount of interface and interaction between a hardware issue plan and a programmatic issue plan.

We may do some investigations of hardware, and find that there are certain programmatic implications that need to be researched. If there is a current issue plan in that area, then we'll investigate it through there from a programmatic standpoint.

By the same token, when we're reviewing programmatic issues plans, if we find that there could be an impact on the hardware, then we'll approach it

both from a hardware and a programmatic standpoint.

Next chart. There are a number of evaluation alternatives that we may use one or more of as we approach each plan. There's certainly that. We can go out and re-inspect hardware. We can also conduct a review of closed out documentation.

There will be data gathered in other CPRT issue plans that will provide us with a certain amount of information. We may find ourselves in a position where we want to review and possibly verify some other TUGCO actions that have taken place that could have been corrective action programs, special inspections that they did or might have completed. Any walkdown inspections they might have done. Any testing programs that they have completed. Whatever we can get our hands on.

We may also end up in a position where we have to go some engineering analysis and evaluation to determine similarity between operations, craft, inspection, inspection techniques, tooling, specific processes, or whatever.

And if we cannot get to some particular piece of hardware that's either inaccessible or just not available to us, we may have to go to some other avenue to accept that piece of hardware. And it could include

some or all of these.

And we are currently using just about all of these in one way or another in current issue plans.

MR. LANDERS: John?

MR. HANSEL: Yes?

MR. LANDERS: The data from other CPRT action plans or issue action plans, who is going to make the judgment on a specific issue that in fact there may be some QA significance? Is the team leader and electrical going to make that decision, and call you people in? Are you people going to review all the specific action plans, and make your own determination.

MR. HANSEL: We have reviewed -- we're very active in that case, Don. We have reviewed all action plans written to date. We're kept informed through periodic meetings as a result of those. In most cases, we do the inspections and documentations reviews for them.

As those results reports are generated by the other review team leaders, we'll be in on the review and exchange of data at that point and pass the baton if in fact there has been an implication in the QA/QC area.

We were talking about at lunch a couple of others that may be coming down the pipe. So that process is working.

MR. LANDERS: Are any of those others that you have

just talked about part of the category 1, programmatic AISP's, either in the programmatic sense or the hardware sense?

MR. HANSEL: That we're currently using today? Oh, we have already done a lot of inspection of hardware already.

MR. LANDERS: No. I mean data from other issues.

MR. HANSEL: That have fit into us from current --

MR. LANDERS: Yes. I think this list is relatively old.

MR. HANSEL: Those are just mine. And you're asking me, is there -- have I had input from other review team leaders into any of these?

MR. LANDERS: Yeah. One of the evaluation alternatives is data from other -- in fact, one of the sources, external sources of issues, is other groups within CPRT.

MR. HANSEL: Yes. Let me talk about it. On the Hilti anchor bolt installation, we have exchange information there. Not particularly from the CPRT, but through the group that inspected cable tray hangers.

Same thing, we're exchanging information on electrical raceway supports. Materials traceability, no exchange of data, but a lot of discussion on materials traceability issues.

Document control, there has been a very active interface between ourselves and the guys who are researching the preoperational testing. In fact we're piggybacking on each other's efforts, going through a combined review there.

MR. LANDERS: Is there any interface in that one area between you and the design construction people, document control?

MR. HANSEL: The project people?

MR. LANDERS: Yes.

MR. HANSEL: We have certainly had to go to them to find out what their files are, how material is filed, drawing list, recision list, DCA's, CMC's, these kinds of things.

So, yes, we have had to go to them to find out various computer printouts and access until the -- to those. And we certainly have a daily interface with the people in the document control center for access to information and closed out QA files, QC files.

In the back?

MR. BURWELL: Spot Burwell again, NRC. In looking at your list of category one hardware, at these, I remember that one of the items of this nature found by the CAT team, I believe, was the heating and ventilating supports, duct supports. You might want to take a look

at that and view. Make some decision about whether you want to include in that.

MR. HANSEL: I will be looking at that specifically as one population in our self-intitiated plan. But we will go look at that, yes.

MR. MOLLONSON: Yes. I'm Jim Mollonson, Teladyne. And under your category 1 issues, I don't see any category for piping. Now there were in a few cases in the quality assurance issues that involved piping deficiencies.

And I would think if you had a category 1 hardware issues specific action plan, you would have one for piping inspection, because you have specific actions to be done.

MR. HANSEL: We're going to hit that under the category 2, self-initiated program.

Any others? Okay.

MR. LANDERS: Yeah. I guess I would like to ask, John, what is it that lead you to that specific judgment? Because I have the same concern, that there are a lot of hardware issues and program issues that I don't see on here, that I can go to external sources and find.

And therefore you have made some judgment to take that out of the external source and put it in the

self-initiated program. And what is it that led to that decision, specifically for piping?

MR. HANSEL: Just that we have -- that's an area of investigation. We feel it's probably more easy to get to through a sample reinspection program and will provide us better answers than going after some type of targeted approach.

MR. SHAO: Maybe to answer this question, is this piping program that you're talking about -- I think you're not ready to address. I think that's in the -- so I don't think you're quite ready to address appendix P yet.

MR. CALVO: No. That piping SER has been going for quite some time.

MR. SHAO: Yeah. But the thing is, that kind of piping, we will say no safety significance. But there is a key breakdown. So what Herb Livermore is saying should be in appendix P. I think you should address appendix P.

MR. CALVO: I'm sorry. But I misunderstood something. You say -- you said you went to every SER that the TRT has prepared. And you went there with the looking at the hardware, and picked up the QA/QC implications on that hardware. You didn't have to be waiting for the Appendix P if you had done that, if

you had in essence collected all the cards on the QA/QC problems.

MR. HANSEL: You're correct. We didn't have to do that, we have had sufficient information in the past.

MR. CALVO: So the question, why that particular one is missing from this list?

MR. HANSEL: Again, we have chosen to put that into our self-intitiated program.

MR. CALVO: What is the judgment of that?

MR. HANSEL: That's the easiest way for us to get at researching that issue.

MR. SHAO: If you provide that answer, a lot of items are missing. A lot of things are missing other than piping. I can cite other ten areas.

MR. HANSEL: So -- no, you have to realize these are the on the issue. There are a number of other issues being investigated by the other team review leaders.

MR. SHAO: But I'm talking about all QA/QC related. But it's not here right now. But I thought you were going to address in appendix P in the future. But if you say you took all the issues from the report, in this report here, I can think of ten issues that you haven't addressed.

MR. HANSEL: Well, we'll be glad to sit down and

review on a case by case basis where you think there is an issue that you think isn't identified.

MR. SHAO: For instance, I don't see anything on concrete.

MR. HANSEL: Concrete is being addressed in another action, under Howard Levin's effort. We have participated with him in that evaluation.

MR. CALVO: You're saying there is no QA/QC complications of concrete; is that right?

MR. HANSEL: Not saying that specifically. We may well address them in Howard's action.

MR. CALVO: You're not quite there to make that judgment.

MR. HANSEL: That's correct. We haven't closed this action plan.

MR. CALVO: So this part here is incomplete then.

MR. HANSEL: I indicated before that this list may be added to as we go, as we learn new things, as we go through all the various actions plan.

MR. SHAO: Howard Levin I think was going to address the design. Is Howard Levin going to address QA/QC issues?

MR. HANSEL: Howard Levin is also responsible for researching certain issues that primarily ended up being either a design issue or a process related issue.

Now if it also has QA/QC implications, there's a lot of dialogue between myself and Howard Levin in the case of the concrete issue. We worked with them in reviewing and the development of that plan. We went out and helped him to get the vendor that would do the actual testing on that concrete. And we reviewed the results of that concrete evaluation.

MR. NOONAN: John, let me interrupt here. It seems to me what this needs right here at this point in time is for you to go back, say, to look at all the SER 's. You have got issues being identified by somebody else, like in the Howard Levin area, something like that. I think you have to put that on the chart to show where the hell it's being investigated. I think the --

MR. HANSEL: We have that detail at the site, Vince. But I don't have it on this particular chart. As I indicated, we're keeping track of all the issues, where they come from. And if we pass some off to somebody else, where they go and they -- how they're dispositioned and the end result.

MR. NOONAN: When get your end program, I think I need to see that. We need to see where all the QA/QC 's are being addressed. If you're not looking at it specifically, then we're already being addressed.

MR. LANDERS: John, is what I'm hearing is the

issues that face us here are primarily QA/QC issues? They may have some other site issues, such as piping. Maybe primarily in your mind the design issue, it has some side QA/QA issues. Is that the dividing line?

MR. HANSEL: Yes, Don. And the senior review team and ours looked at the issues and decided who would be the primary person to work it. And that's been done.

MR. LANDERS: Which does not mean that you will not look at the QA/QC aspects of design control.

MR. HANSEL: I will look at every one of those others, and search out and seek out any QA/QC implications and research them.

MR. LANDERS: So in following up what Vince said, a Matrix that would indicate primary responsibility for your group, and maybe a secondary responsibility for your group, would be of great benefit to us.

MR. HANSEL: Yes. And in each of our action plans, the interphases are identified. I don't know for certain, but I suspect if you go look at Howard Levin's issue plan on concrete, you'll see me in there as an interface point for the QA QC implications on that.

We may have in our action plans where we may have a design issue, or we may have some other type of a process issue. You will see that I have identified the interface there.

If you go to the electrical issue plans, you will see in places where they have talked to me, and I'm identified as an interface.

And there's a very active exchange of data and information. But I think we see where your concerns are.

MR. VOLLMER: I guess the important point, the action plan detail is going to address on how you made this cross from all the design plans, how you interface with it. So I at least can understand.

MR. HANSEL: Yes.

MR. LIVERMORE: I have a question. Herb Livermore. I guess, bottom line, when we come to review the QA/QC plan, I myself will be looking for that type of identification of the -- all the QA/QC issues. And you will address them in your plan?

MR. HANSEL: Yes.

MR. LIVERMORE: Not just by a reference, "go see another plan"? I can expect some other plan; is that correct?

MR. HANSEL: Either that or through a matrix. I can get you to those other plans. I will not have, Herb, per se, an issue plan on every QA/QC issue, if in fact I'm secondary to somebody else who is working that issue. I will have in my records, though, what I did in

research of that, from a QA/QC standpoint.

MR. LIVERMORE: My bottom line is that I have got to go see that you did that from a a standpoint.

MR. HANSEL: And we can provide that accountability.

MR. LIVERMORE: Address some kind of conclusion somewhere.

MR. HANSEL: Yes. We can provide you that road map.

MR. LANDERS: And, John, when you are secondary, you are still going to look at the cumulative effect of different issues?

MR. HANSEL: You bet. In fact, Don, and for that second chart where I showed the five blocks across the top, I'm going to draw every piece of data I can get from all those actions plan into our collective evaluation on QA/QC and construction adequacy.

MR. CALVO: Maybe I'm getting too early, I guess. You're talking about issues going into the plan, into this right here. How do you look at these issues if they come from the electrical discipline, or from the mechanical, and you relate that, because something you found on the electrical also was -- had some complications maybe in the mechanical.

How will you tell the mechanical team, "Now will

you please worry about this particular part, because the electrical is pointing out a problem in here?"

That cuts across to other discipline.

MR. HANSEL: From a QA/QC standpoint you want --

MR. CALVO: Are you talking about it now, or are we too early? It can wait.

MR. HANSEL: I wasn't going to talk about it. But again, it's back to the interplay between the various issue plans. If, in the research of an electrical concern or issue, and they found an implication in there that says that there may have been a problem in the quality control or QA aspects of mechanical type installations, we'll take that and we'll work it.

If we don't have an action plan where it fits currently, we'll create a new plan, and go work the specifics aspects of that, and feed the information back into that other plan, or close it our -- in that plan.

MR. CALVO: Who makes that decision? You as the team leader make that decision, or back to the senior review?

MR. HANSEL: It's usually done collectively between the two review team leaders. And then we'll go tell the senior review team it needs to be done and we're doing it.

MR. CALVO: Your plan, detailed plan, you're going

to submit it? I will see that you can address, how to handle that?

MR. HANSEL: Okay. What he's talking about is the interplay and transfer back and forth of knowledge of information.

MR. BECK: Yes.

MR. HANSEL: All right. Evaluation and results.

When we are inspecting documentation or reviewing -- inspecting either documentation or hardware, we will have differences from the drawings or the specifications.

We're going to classify those as deviations at that point in time. They will then be evaluated on a case by case basis, first to determine if in fact that deviation has -- it exists on that piece of hardware, is safety significant.

At that point in time, if it is, it will be classified as a safety significant deficiency. If we have a programmatic problem, it's either a problem in terms of the procedure or the records or the method of handling paper or traceability of materials, whatever that might be. We'll classify that as a programmatic deficiency, and take it from there.

We may also at that point in time have to create some new issue plans if in fact the research of that, to

determine how far spread or how widespread it is. We may have to create some new issues plans for the investigation of that.

We'll then go through a root cause analysis and a generic implications analysis on a case by case basis for each of those that are determined to be safety significant.

MR. NOONAN: John, can I interrupt you. Have you done any of that? Have you looked at any root causes yet?

MR. HANSEL: Nothing that we have documented. We have done a lot of research and investigation. We have done some, for instance, in the area of nonconformance reports that came out of the January letter. And again, is covered in the SSER 11.

And we have done some in the fabrication shop. A lot of preliminary analysis, but no conclusions that I want to draw yet. We're getting close in a couple of areas.

MR. CALVO: Excuse me. Let me pose you a hypothetical question. Let's say you do a review of the QA/QC program, and you find something was wrong with the NCR. The nonconformance report wasn't kept, hypothetically.

What step would you take to convey this message to

all the team leaders? What will you tell them to do?

MR. HANSEL: First off, I want to identify if it was a single instance or --

MR. CALVO: Generic.

MR. HANSEL: Generic kind of a problem, and there are generic implications? Then we'll certainly send a letter, number one, to the senior review team, and to all the other issue plans, and say, "Hey, we found another issue here that could have implications in your area."

And then we'll get together to research that to look at the effects. But if we found something that cut across all areas, Jose, it would go to the senior review team and to other review team leaders. And they would collectively decide how to go about it and assess the effect.

MR. CALVO: Okay. That's all right.

MR. MOLLONSON: John, I'm Jim Mollonson. I look at this evaluation of results. And from a quality assurance effect, I could see a bottom line that shows how I get over into a corrective action mold. Are we going to come to that place after the evaluation of results?

MR. HANSEL: I will in the self-initiated program.

In this particular case, I apologize. There should

be another one on here that says recommend corrective actions. If in fact they're in order, and I'm sure there will be some of those.

MR. MOLLONSON: I have one other question. Is that a corrective active system within the response team, or within the Comanche Peak QA program?

MR. HANSEL: We're going to make recommendations only to the project as to what they need to do to fix a specific item or area of concern. We will send them information. In most cases, via an NCR.

If it's a programmatic type of thing, we're going to notify them through the senior review team.

MR. MOLLONSON: And you have a follow-up group in the response team that follows up on corrective actions?

MR. HANSEN: Yes.

MR. CALVO: Where the trending appear, or the -- come. Where is that?

MR. HANSEL: I'm going to talk about trending, Jose, in the self-initiated program. Not so much here, because I'm working a specific issue here. Now I may well find trends in the research there as well. I'm going to talk about trending later on in detail.

MR. BOSNAK: John, I'd like to follow-up on Jim's question with respect to root cause in the piping and pipe support area. Haven't you yet in fact determined

a -- the basic root cause there?

MR. HANSEL: For QA/QC?

MR. BOSNAK: Well, the design process itself, QA/QC.

MR. HANSEL: I have not gotten involved in the design process yet on piping or anything else. We're leaving that to the other group. They will call upon me as needed. I -- we have broken that off specifically, rather than trying to have two parties working one area.

And that particular piece was given to Howard Levin and his folks. Works a whole lot better that way than having two people mulling in there trying to search out the same type of issues. Next chart.

In our root cause evaluation, we're going to attempt to identify what cause -- what was the root cause or root causes? And we'll be doing that for safety significant hardware deficiencies, any programmatic deficiencies that we identify, and adverse trends. And you will note the reinspection, Jose.

Now we may find some in specific action plans, but I doubt it, because we're looking at specifics there. We may not find generic trends that apply elsewhere.

I'll talk in more detail later in terms of the -- some of the potential root causes and how we're going

to go about that. We'll identify those root causes, document them and, then look for the generic implication in, number one, the hardware population.

We're looking at other populations, and they may as well as be -- there may well be implications in programmatic areas.

MR. CALVO: I'm assuming that you will cross between disciplines and with the same discipline?

MR. HANSEL: Yes.

MR. CALVO: You should have said that. Otherwise we'll be asking you the same question all the time.

MR. HANSEL: Okay. Next chart. When we finish this program on the category 1's, we think that we will have identified any safety significant hardware deficiencies that exist, and any programmatic deficiencies that exist.

We will have analyzed them for root cause generic implications, and we will have provided reasonable assurance that there are no undetected and uncorrected safety significant hardware deficiencies related to those external sources. Next chart.

I'd like to now talk about the self-initiated program, which is the center block of this chart, labeled hardware reinspection and documentation review. And if you will recall, I labeled that as category two.

By the initiation of this program, we feel it will add another level of confidence into the results of what we learn in the category 1 issue plans. And that we'll be able to extend the conclusions that we drew from the category 1 issue plans to the entire population of safety related hardware. It's quite an extensive program. Next chart.

Our methodology. I'm going to talk about each of these in great detail. We will establish hardware populations. We'll select samples. We'll inspect those samples, and we will also conduct documentation reviews. We'll evaluate the results of those on a population by population basis and in the entirety. Next chart.

MR. LANDERS: John, before you go on, in establishing populations and selecting samples, how much reliance, if any, will you place on the category one issues that you have resolved? Are you going to try and turn a blank mind what's going on in that area, or what?

MR. HANSEL: We're -- if we have done a rather extensive sampling process already in category 1, we haven't made a determination yet. If it's -- it was extensive, and we're satisfied with it, we may substitute it. I'm not ready to answer it yet.

So far I know of none where we would do any of the

modification of the sampling and reinspection program.

MR. CALVO: Will the detail plan provide the criteria that you are supposed to do that?

MR. HANSEL: Yes.

MR. CALVO: Tell us how to do it, whether you know that's correct. Will you please take a look, so we have some plan? I mean your program plan by June 28, we are going to have that information?

MR. HANSEL: Tell me again exactly what you want, Jose. Tell me again exactly what you want. How we're going to define the populations and how we're going to select the samples?

MR. CALVO: No. How are you going to adjust for the fact if the specific issues already give you enough of the sampling, you have got to come up with a --

MR. HANSEL: That will be covered, yes, in our issue plans.

MR. CALVO: Will the issue plans also how you are going to factor that into selective population?

MR. BECK: If it is.

MR. CALVO: If we have to approve the plan, we have got to get that information.

MR. HANSEL: Yes. You will, in the composite between those issue plans, you will know which plan the hardware is being covered in. You will know if we're

combining the efforts of two. You will have to account for it.

MR. CALVO: I'm not going to get the issue plan June the 28th. I'm going to have the master plan June the 28th, and that covers the criteria -- covers how the specific issue plan is going to be done? We have got to know it then, or it's going to be an open item.

MR. BECK: Jose, you will have all of it on the 28th.

MR. CALVO: You keep saying yes and he keeps saying no.

MR. HANSEL: No. We're saying the same thing. It's all going to be in that package that you receive the end of June.

MR. BECK: We said he doesn't know of any instance in the generic where there is any duplication. But if there is, it will be identified.

MR. CALVO: That's all right. But it will be identified.

MR. BECK: But today there's not.

MR. SHAO: But anything that's missing in this package, will be in Howard Levin's package?

MR. HANSEL: In the totality. In the package that you get the end of June, I think you will be satisfied that all issues have been addressed, in addition to the

self-initiated programs. And where there is some interplay between issue plans, Larry, and the self-initiated programs. You can see that.

MR. SHAO: What about tomorrow? You have a list that you are working on right now? You said those issues are working. Tomorrow will I see none of this, of the missing items?

MR. BECK: What you will see tomorrow is a list of those items that are going to be covered under the design adequacy plan. We are not going to address, as part of this presentation, those issued specific actions plans that we have already talked about on a number of occasions. It will, however, be included at the end of the month in the total package. Everything.

I will, before the close of the day tomorrow, give you a status on the issue specific action plans.

MR. SHAO: I'm a bit confused now. John just say that a lot of QA/QC item is not here, but will be addressed by Howard Levin, QA/QC related. I'm not talking about design QA/QC related construction issues.

MR. BECK: I'm not sure I understand your concern right now.

MR. SHAO: Okay.

MR. HANSEL: Let me take that.

MR. SHAO: Give an example. I'll just ask the

question again. A lot of QA/QC concrete construction issues is not listed here. And I think John is saying it will be covered by Howard Levin.

MR. HANSEL: Let me take a cut at it, John.

MR. BECK: Please do.

MR. HANSEL: In the package that you get at the end of the month, you're going to receive the complete program plan. You're going to receive an appendix that covers my construction QA/QC adequacy plan. You're going to receive another appendix addressing Howard Levin's program. And you're going to receive all of the issue specific action plans. Let me go ahead, Jose, if I may.

MR. CALVO: Don't miss --

MR. SHAO: Tomorrow you're not going to cover that?

MR. CALVO: You miss one more important one. You're going to see all the interactions between all the plans design -- what design review, design adequate review, right across these disciplines, but if you find something's wrong, how the interactions are going to be taken care of. That's what we're going to see; right? That was pointed to you, John.

MR. HANSEL: We'll have to develop that.

MR. BECK: Yes. What we have not done is put together a matrix that draws on each of the issues

specific action plans and involve interfaces between the primary responsibility in a discipline, i.e., mechanical, and QA/QC. It's in the body of the action plan itself. For convenience of reference, we will develop that matrix, and have it included.

MR. CALVO: I'm not only looking for the matrix. For the mechanism.

MR. BECK: The mechanism is spelled out in words.

MR. CALVO: All right.

MR. HANSEL: The mechanism for the transfer is there.

MR. BECK: And the name of the people involved on both sides of the issue and the discipline, and the QA/QC. It's all in there.

MR. CALVO: Okay.

MR. HANSEL: Let's talk about the self-initiated program. And bear with me and, please try to hold -- not to shut off questions. But try to hold them because I think by the time I finish, I will have answered most of the questions.

We're going to establish populations of hardware. And currently there are approximately 30 of those. I'll show you a list of what those look like in a second. There will be a population description on a population by population basis that says what is in a particular

population, what is not in a population, how it's bounded, and what are the interfaces between that population of hardware and another population of hardware.

Let's show them the list, John. This is a preliminary list. This is the approach that we took at Braewood, and it's worked very well there. I want to emphasize it's preliminary, but it will come out very close to being just like this.

And I'm sure I could stand up here all afternoon answering questions about the specifics of where a particular item of hardware is at. And I'm not capable of answering that at this point in time. I can only assure you that when we finish these populations of hardware, will include all types of safety related items.

We feel that these populations of hardware will be reasonably homogenous, and that they -- populations will be based on similarity of construction processes and our inspection processes, which is the best way for us to get to the hardware.

The adequacy of each population will be, again, as I indicated, based upon similarity of the inspection techniques, construction techniques, and how we can best get to it.

Let's go back to the main chart, John. From that point in time, once those population definitions are completed. And incidentally, we have four of those completed, we then will go about the process of selecting samples.

Let's put the next chart up. We'll develop a list of all safety related construction work that's been completed and inspected for both units for each of those populations. I want to emphasize completed and inspected. Basically bought off.

We cannot -- will not inspect in-process work. We're going to work on completed work. We then will select a sample randomly from that total list, based on the 9595 standard that John talked about this morning. That will be our first sample. That will be a totally random sample from that population.

We then will continue to select items randomly from that population that fall within the category of systems required for safe shutdown. So we will have two samples of hardware from the same population.

It's currently planned that the first sample will be 60 items. The second sample will also consist of 60, but there may be some items in the first population that are from safe shutdown systems. So you could have some overlap of items in the population.

We have to verify the accessibility of each item. Can we get to it and can we inspect it? If we cannot, we will throw that item out of the sample and go to the next item. Let's go back to the master chart, John.

MR. HANSEL: Once we have the samples selected, we'll then parallel. Really we will develop detailed check lists to be used by the inspectors. And those check lists will include the safety significant attributes for each of the populations and the accept/reject criteria. And those will be based upon released drawings and construction specs, the codes, standards, whatever might apply. I want to emphasize safety significant attributes.

In some cases, where it's necessary, we will even provide additional instructions to the inspector on now to conduct the inspection.

MR. BOSNAK: John, I hope the FSAR would include the criteria.

MR. HANSEL: I had not planned to go that far. And it may be a bad assumption, I don't know. But assuming there has been a verification between the released drawings and specifics and the FSAR.

MR. BOSNAK: Do we know that?

MR. LANDERS: You mean that they were in compliance?

MR. BOSNAK: That's an important step, if we don't know it.

MR. VOLLMER: I missed that. Would you repeat that again?

MR. HANSEL: The question was, do we plan to go make a comparison against the FSAR? Again, I'm not trying to verify in my program the adequacy of the design, or the compliance of the design. It's my job to evaluate the adequacy of the construction. So therefore I must start from released drawings and specifications.

MR. LANDERS: But in making a determination on safety significance and reliance on the drawing and specification, then the use of the terms safety significant, based on your assumption, automatically includes compliance with the FSAR because you have made the assumption up front that the drawing complies with the FSAR. And my concern is how you are going to determine safety significant attributes of a weld, for example.

MR. HANSEN: Well, I think we could. You know, in that case, Don, there is some types of defects or attributes that are certainly more. Well spattered, for instance, in my opinion, is not a safety significant deficiency. Certain types of undercut, certain levels of porosity.

No need to spend a lot of time out there in speculating hardware for certain types of defects, if in fact you don't determine or make a determination that they're safety significant.

MR. LANDERS: But then you bring up a very, very important issue, because, in fact, the undercut and the kinds of things you're talking about won't show on the design drawing. Will not be allowed by the construction.

MR. HANSEL: But they will be included in codes and standards.

MR. LANDERS: Will not be allowed by some codes and standards, depending on what we're talking about, how you're going to make the determination that the weld does not have safety significance, if it's not in compliance with those. I'm just trying to --

MR. HANSEL: I think that the only -- I cannot tell you that our review will be complete enough, in the definition of what's safety significant. If we have to go to the FSAR to determine that, we will.

We have not had that experience in the past, where we have had to do that, to a great degree. Another point, let me help again. The results of our check lists are going to be provided to the other review team leaders as well. And they will have input into it. In

fact, if they see something that needs to be included in there. So they will bring that piece to the program.

MR. TRAMMELL: John, this is Charlie Trammell. On that same line, I had a question about safety significant. Is that a yes/no question? You just let it go at that.

MR. HANSEL: Not totally, but it's very close to that, I think.

MR. TRAMMELL: Well, maybe just as a thought here. There are grades, as you just suggested, of importance. And it would seem to me like you may want to give some thought of having maybe critical defects or important defects or unimportant, so that you can --

MR. HANSEL: What it is, Charlie? It's basically to screen out the unimportant defects and include everything else.

MR. BOSNAK: We have to have an idea what you consider to be important and what you consider not to be important. That gradation is vital.

MR. NOONAN: John, I think you have to rethink that position about not using the FSAR. I really do.

MR. BECK: I have taken -- made a note of that. I think the key is going to be, when we get to the nitty-gritty of the safety significant attributes, either they're going to be derived, how they were

derived, what they are, what the sources were. Clearly we're going to have to consider that.

MR. CALVO: I'm sorry. I don't think so, because we are going to approve the master plan by June 28th, and have the criteria for -- the safety significant. You keep throwing us back to the plan, specific ones. Those are not going to be ready for a long time.

We have got to know what you have in mind when you say what's important and not important by June 28. Otherwise, we are going to have to have to wait for the plan, the specific plan. If that's what you want, we wait for that.

MR. BECK: I just said that we would have to consider that at the FSAR connection and commitments visavis safety significant attributes, and we will do that. I think we need to modify the plan.

MR. VOLLMER: I'm sorry. I see.

MR. BECK: I recognize the observation as a darned good one.

MR. MARTIN: Another question. Bob Martin. When will the inspections conducted on those attributes, which are judged to be safety significant, after we establish what those will constitute.

Those attributes which are safety significant attributes, is it possible or likely that they will be

be inspected against more specific criteria than were contained in the codes or standards that were applicable at the time of the original inspection?

MR. HANSEL: No, I would anticipate them to be equal to or less than.

MR. MARTIN: Equal to or less than?

MR. HANSEL: In most cases, equal to.

MR. MARTIN: There are certain codes. One I can think of, in which the code or standard itself leaves great flexibility to the individual inspector in terms of judging the adequacy. I think of AWS, the American Welding Society, D-11, industrial welding code, is the most recent example I have in mind. It leaves a number of attributes to the skill and training and judgment of the inspector.

Then are we running the risk, absent the CPRT, specifying more objective criteria, rather than judgmental criteria. Are we running the risk of getting into having to resolve differences in judgments? We will be going out in some of those areas and also inspecting, probably, using the same codes with different people making the judgments.

MR. HANSEL: I don't --

MR. MARTIN: Have you looked at those codes to see, and will you be, as part of your issues, looking at the

standards you're applying, to see if they are sufficiently objective, that they become objective evaluations, rather than subjective evaluations?

MR. HANSEL: That's in the process right now. But, you know, as well as I do, in the code world, we're always going to have a lot of subjectivity and some disagreement. But we are reseaching that right now as we develop the accept/reject criteria and the method of inspection.

MR. MARTIN: And again, if I understood you correctly, there is a possibility that you anticipate that the criteria, the inspection criteria, is not likely to be more demanding than the original. And could in some cases be less than demanding than the original criteria.

MR. HANSEL: That's correct, sir. We certainly could not go out and inspect that plant today with more stringent criteria than what was applied. That is not a good judgment. We do need to assure ourselves that innerently that these drawing and specs were used for that inspection initially.

But we can't certainly go out and apply more rigid standards today, unless they have been included in update standards, and in fact applied to that hardware. It's not right to do. It's a very touchy area, and we

need to watch that one very close.

We will also put together a documentation check review list that will be used for the review of documentation. We do not plan to do an indepth review of documentation. We will do what is required to assure ourselves that any critical operations took place, and that they were applied. And talking terms traceability, heat treat, whatever it might have been.

But we're concentrating on what impact could have been on the hardware. We're not looking for the crossing of the T's and dotting of the I's, these kinds of things. We'll be looking for those kind of attributes that could have had an impact on the hardware. Let's go back to the original, John.

Verification packages will be put together for the inspectors that will include the drawings, the specifications, the check lists, and NCR 's that are appropriate for him to do that inspection. They will then go about the process of conducting the inspections and the documentation review. Next chart.

MR. SHAO: Excuse me. After you select the sample, you look at it, everything, locate how can you draw the conclusion that the rest of the plans are okay?

MR. HANSEL: I can on that population, on a statistical basis.

MR. SHAO: You can on a statistical basis?

MR. HANSEL: Yes. On a population by population basis.

MR. SHAO: Okay.

MR. HANSEL: Upon what I find in this sample.

MR. MOLLONSON: All right. John, so you --

MR. HANSEL: Somebody had a question.

MR. MOLLONSON: John, excuse me. The documentation checklist for review of documentation, will that include the existing site procedures?

MR. HANSEL: The existing site procedure?

MR. MOLLONSON: Yes.

MR. HANSEL: No, it will be related to the item of equipment that I'm looking at. I will look at the hardware on a case by case basis. I'll be looking at the same piece of closed out inspection paperwork on that piece of -- on that piece of hardware.

MR. MOLLONSON: But out of the system, we're trying to get here, I guess, is flotation of -- get well. If some construction continues out there, and if your review only finds that the documentation is good to satisfy the issue, and doesn't take into consideration that it can improve the system by improving adequacy of the procedure or --

MR. HANSEL: I'm beyond the issue now. I'm looking

at a random sample of hardware representing the total plant on a population by population basis.

If I find that the hardware is good, and the documentation that's been verified by inspection is in the vault, and it's okay, then I should be able to --

MR. MOLLONSON: Then the ones you find are good aren't the items of concern. The ones that you find that aren't good are the items of concern.

MR. HANSEL: Then if I find them not to be good, I'll research them for root cause and generic implications, and expand as necessary.

MR. MOLLONSON: Thank you.

MR. HANSEL: Does that answer it? We're not going to quit just -- no, let me go ahead. We're going to do a root cause and generic implication and adverse trends analysis as well. So that could lead me back into current procedures.

MR. CALVO: Go ahead.

MR. LANDERS: The adverse trend analysis, and getting back to Bob's point about the code of construction or something less than that, in a situation and a sample where you would have 20 items that were -- that you have judged the hardware is acceptable, and you could defend that, based on a criteria that was less than the construction criteria, would that lead you to

do some trend analysis because 20 items did not comply with the construction requirements, even though in your opinion, the hardware did not have safety significance?

MR. HANSEL: Let me talk about that a little bit later in detail. But let me address it now, because I think it's appropriate.

If I had 20 deviations, and none of them were safety significant, if they were all different in terms of the deviation, and if they were all insignificant, I probably wouldn't do a thing.

You know, there's no science what I can say to you. I can see you're starting to chuckle. However, if I had some number in there, and I don't know what that number is, there were more significant, it may say, "Hey, I better go research this and" -- or if I zeroed in and I had a problem with a particular craft or a particular inspector a particular discipline or a particular procedure, then I'm going to go research it. So I can't answer your question until I get my hands on the data.

MR. LANDERS: However, in a general way, will you address this in the plan?

MR. HANSEL: Yes. You bet. Jose?

MR. CALVO: Are you going -- I guess the thing I understand what you're talking about the population, are

you going to talk about how you can figure these populations that you can eventually come out over all reasonable assurance? Are you going to address that point sometime later?

And the other question that I had, is why do you pick up random and selected samples from the system required for safety shutdown? Why did you not pick up the system required to mitigate the consequence of the accidents? I'm just asking.

To the best of my knowledge, you pick up a significant for required for safe shutdown. That's the system that you normally use every time you shut the plant down. The one you don't normally use is the system that's required for the the accident. What was the criteria for selecting this one, and not the other? I'm not saying you're wrong. But I wonder why.

MR. HANSEL: That's been a subject of many hours of discussion, as to what we would pick our engineered sample from. And we felt it was those systems required for safe shutdown for a number of reasons.

Number one, that list is identified through the FSAR. It's been accepted. It's easy to implement. It will cut across all those 30 populations, if we end up with 30 populations.

And beyond that I can't give you any really great

reason. There are a number of approaches to this, as you know. There are no PRA's on this plan. We have no way to back into that easily. And we felt the safe shutdown systems were the most logical way to go on this plant.

MR. CALVO: You're right about cutting -- cut off all the other systems interfaces because remote shutdown plan on all these systems be required, borrowing pieces from all the other systems, is what you're saying. And this is more representative in taking a design basis --

MR. HANSEL: About the only thing I might miss is concrete.

MR. HANSEL: Okay. There will be --

MR. CALVO: Wait a minute. You didn't answer my first question. Are you going to tell us how you put together all those populations? How you figure it all up?

MR. HANSEL: I thought I'd answered that, but let me go back. We will identify the populations. It will come someplace close to that list of 30 that I showed you.

MR. CALVO: What was the basis for that?

MR. HANSEL: And there will be a detailed description at the site for each population, what is in the population, now it's bounded, what is not in the

population, and the interfaces between that population and the other populations.

MR. CALVO: You would also explain why not 300 instead of 30? There would be a reason for that?

MR. HANSEL: To be real frank, we used a system similar to that at Braewood, and it covered everything, and it was convenient and easy. And I used it.

And it does cover everything, and it's grouped primarily similarly by work processes and inspection.

MR. CALVO: You're not answering my question. If you did it in Braewood, you had some basis at Braewood. What was your basis in Braewood?

MR. HANSEL: It's based upon similarity of work processes and inspection craft people. When I put together the check lists for those populations, I can now define the individual attributes for that. And they come out pretty clean and easy to implement. It's been proven and it's good.

It's primarily, though, Jose, it's based upon -- we got to the populations via the route of defining work processes and the attributes we wanted to go after.

MR. CALVO: Well, you also factor that QC inspections, and you configure the population. If you had a problem with certain craft, electrical craft or the piping, do you consider that, or that was an input

for you to come up with this configuration?

MR. HANSEL: I used no bias in putting together those lists of populations, because I wanted at this time to be random. I wanted the population to be reasonably homogenous.

MR. CALVO: The population itself. But the configuration of the various populations, why you got -- I still -- I know what you're saying. You did it based on what you did at Braewood, and that was based on the fact that you come up with 30 -- you got 30 work --

MR. HANSEL: Similar work processes and inspection types.

MR. CALVO: You say -- okay, all right. That's okay. Okay.

MR. HANSEL: Okay. Now once a deviation is documented, it will come back into the same group of engineers that put together, the checklist, and defined the accept/reject criteria.

And they're going to verify that that deviation has identified by an inspector is in fact valid. And I'm not saying that there is a big population of invalid deficiencies. But in any situation like this, you may have one where the condition as described really is in fact in accordance with engineering.

When it's looked at by the engineer, or it's

already been documented and accepted on a control deficiency document, such as an NCR, or you could find the point to where there -- the condition was okay at the point in time of the initial construction, and has been some pieces. Subsequent engineering came out, found that item of hardware, accepted it.

Or you may in the fourth case, and this gets back to Bob Miller's question. I'm certain we're going to have some where they're highly subjective in nature. And in those cases, we'll use a level 3 as a referee.

MR. BOSNAK: Just to comment on that, John. If your yardstick that you're measuring your proof design is flawed, then that number A is flawed also. So it goes back to the issue I raised earlier. But it's very important.

MR. HANSEL: No. A gets to a potential where an inspector didn't read the checklist or the drawing properly, and called something deficient. And when he comes back and actually checks it with the engineering and the drawings, it was in fact --

MR. BOSNAK: Again, as long as we have an agreement by what you mean by approved design, and that was the point I raised earlier. And this number B, I don't understand it. If it's a deficiency, then it's a deficiency. Why do you say it's invalid and --

MR. HANSEL: I may have in the case of -- I may have a condition that was documented sometime in the past, and has been dispositioned by engineering as okay. As is, do not repair. And we in fact agree with that disposition.

Now you have somewhat of a diversion, minor diversions from drawing their spec. The inspector picked it up. It has been accepted by engineering and is okay as is. And parallel with that process, the deviations will all go to the project for preparation of an NCR. So they go a parallel route.

At this point in time, we're going to ask that that hardware not be repaired until such time as we can get an engineering group out there to conduct an evaluation for safety significance.

Let's go back to the flow chart, John. I have to apologize. Sometime during the night one of my charts didn't -- yes, Don?

M. LANDERS: John, I'd like to go back, because I'm trying to figure out what C means. And maybe you could help me. Under process deviation reports, I'm not sure I understand C. And I want to understand.

MR. HANSEL: There could be the situation, and I don't know that it will happen here. I'm not that familiar with their system yet. But you could have a

situation to where you only required rework or modification of certain hangers. A population of hangers or a subset of some hangers by typing, but not on others.

And the inspector, when he looked at it, saw a condition. And in fact that particular hanger may have been exempted from a particular modification. You would have to have, in every case, you would have to have evidence of the engineering that covered that.

You may have some category 1 hardware that's been modified, versus some category 2 that hadn't, the guy carried it over and looked at it, and the mods on this particular hanger were not required. And the documentation should reflect that by part number, serial number, whatever.

MR. LANDERS: Isn't that an A?

MR. HANSEL: It is A, but it's almost a -- A. I look at as a -- an inspection accuracy. The guy saw something, and didn't read the drawing right. Whereas compared with C, you do have a released drawing to cover it. The first one's a call.

MR. LANDERS: Thank you.

MR. HANSEL: Okay. On the float chart, in this particular block right here, which I'm going to talk about next, that block is correct in saying evaluate

results.

But in that evaluation, we're going to do root cause and generic implications evaluation for safety significant deficiencies. And we will also do trend analysis to identify any adverse trends. So it's bigger than just to evaluate results. It's root cause, generic implications, and adverse trend analysis. And that we will conduct in that area. Going to talk about those in some detail.

MR. NOONAN: John, how is that fed back into the leaders group?

MR. HANSEL: Again, if we start to find problems, say, in the piping area or cable tray hanger area, we now have some safety significant deficiencies that need to be evaluated. We will be processing that information. They will have access to and get copies of our deviations and our deficiencies.

And also they may even be asked to participate in root cause analysis. In fact, it has design implications. There is a tremendous exchange of information between ourselves and them.

We have in my organization a separate group of engineers that are assigned the responsibility to conduct safety significance evaluation.

MR. BOSNAK: John, are you saying, in that second

bullet, that you have the full responsibility for, or is it the other group?

MR. HANSEL: Which one are you talking about now?

MR. BOSNAK: To perform engineering evaluation.

MR. HANSEL: We have the prime responsibility. But we will have a very, very close interface with the otner review team leaders and the design adequacy group.

MR. LANDERS: John, I have a concern with the way that's worded, because it is in fact a reflection of a number of issues that have transpired in the past.

And that is, performing evaluation or analysis with respect to safety function. And we get into that situation again with respect to, "What are you going to use? What are you going to comply with? What is the criteria are you going to be using, nonstandard type analyses and techniques," that kind of situation.

MR. HANSEL: In this particular area, this will include again drawings, specifications. And I'm certain in this particular case, considerations of the FSAR.

How the evaluation of that goes about, usually figure the worst case. If you have got, for instance, a welding discrepancy, and a weld is short, they will re-evaluate that, based upon wnat remaining margin is in that particular nanger or support.

MR. BOSNAK: I would put a big star in that one.

MR. HANSEL: What?

MR. BOSNAK: I would put a big red star about that bullet.

MR. HANSEL: Why is that?

MR. BOSNAK: We're concerned about that particular aspect.

MR. HANSEL: Yes. We're bringing in these particular evaluation people from Stone and Webster. People will be working with me and conducting the evaluation. There has to be a very close interface with the other design adequacy group and the other review team leaders.

MR. LANDERS: Okay. Can I add here, John, that you said consideration to the FSAR requirements?

MR. HANSEL: Yes.

MR. HANSEL: John committed me on the front end. We will put it in the back end as well.

MR. CALVO: I'd like to go back to the population. You want to go ahead and finish?

MR. HANSEL: Go back to the population for just a second. John Guilbert, did you have a point?

MR. GUILBERT: Yes. John Guilbert on the senior review team. Bob, you have raised the question several times with respect to what extent we go back to the FSAR. This quality construction, one of the things we

need to understand.

First of all, we have two self-initiated programs. The employees, John Hansen is one, is intended to determine whether or not the plant as constructed was properly constructed in accordance with the design that was given to the people to construct it to. And it was sampling that to determine whether or not the people were constructing it right.

On the other hand, as you will hear tomorrow, we have a number of activities looking at various aspects of the design processes, which start with the design criteria, and determine whether the designers actually met the design criteria and commitments when they designed the plant.

These are two supplementary efforts. But they each have a different purpose. Okay. Now when you get into the safety significance evaluations of deviation and deficiencies from the construction process, certainly then you have to look at the underlying criteria the designer used for the design it was constructed to. And that's going to relate back to the FSAR.

And nevertheless, it's a commitment. So come again -- so you have to understand those are two supplementary or complimentary programs going here. They're intended to reach a conclusion on separate

things.

MR. BOSNAK: I think I understand what you're saying. But I don't know how well the thing is going to be integrated. That's the way --

MR. GUILBERT: The way it's being integrated is, is that we're doing enough checking through the number of populations and samplings.

We're doing, in both pieces of that program, to individually come a conclusion we can extrapolate. And either one of them to their end, so that we can make a conclusion based upon the total population, as it were, from the point of view of construction weld and from the total population over here, as it is for design quality. Therefore we dealt with it across the board.

MR. LANDERS: John, I have no problem with what you have just said, other than when I see the word safety significance and recognize that someone is making judgment on what an inspector will look at it in making that determination.

MR. HANSEL: Oh, that will not be an inspector.

MR. LANDERS: I understand it won't be. He is going to be provided procedures. And we need to know the basis for those procedures and the determination of what is safety significant. That's our only concern with respect to the link between construction and design

and FSAR. That's the first one.

And the second one is, when a deviation occurs, and I'm going to evaluate the safety significance, we are concerned because of what's occurred in the past, that that evaluation will go well beyond the standard evaluation used in designing the plant.

MR. GUILBERT: Understood. But I think you know enough about FSAR's to know this -- the kinds of plans are, and the kinds of things you would inspect, are not randomly included in the FSAR. They're in the underlying document, drawing, procedures, specifications.

John Hansel's offering -- this program, until he finds a deviation, that those underlying criteria, commitments, et cetera, have been accurately reflected in the design, that that guy who has asked to go construction.

It's only when he finds a deviation, he will then go back and maybe perhaps question the other issue as well.

And Howard's task is to verify that he can make a statement to the extent of what he's looking at, that he's got confidence that the plan was designed in accordance with the design criteria.

MR. LANDERS: I understand that. But we did get an

answer that said, you know, if the weld size doesn't agree with the drawing, that might be acceptable. And based on what you just said, it is not acceptable.

MR. GUILBERT: It will have to be evaluated.

MR. HANSEL: Don, we're going -- the checklist will be put together primarily concerning safety significant attributes, inspect document deviations. And those are evaluated by some very senior engineers to determine if in fact that defect or deficiency as identified is safety significant.

And they will take all the tools that they need in terms of calculations, drawing, background information on that particular hanger, support, whatever it might be to make that -- to draw that conclusion.

MR. LANDERS: The more you say, the more concerned I become.

MR. CALVO: John, if we are going to approve your so -- we know that plan is sufficiently -- sufficient, and we don't have to wait for the results to approve it for that new choice.

MR. HANSEL: You had a question on populations?

MR. NOONAN: I think I'd like to take a break now, for the reporter.

(Whereupon there was a recess.)

MR. HANSEL: I think for the sake of clarity, I'd

like to take just a couple of minutes.

MR. NOONAN: John, let me interrupt you a second. During the break, the staff was talking to me about the safety significance. And it's not clear to us of defining whether it's -- it appears to be judgmental, I know. It's know it's not. It's just not clear.

I think in your program, you're going to have to be very explicit what you mean by safety significance. I got that from a number of staff people. I want to make that request from this podium, how you stand, very, very clearly on it.

MR. EISENHUT: I wanted to ask more of a logistic question also. We were talking about, before we started. Can you give me a rough idea when at the rate we're now going, when you think you would finish the agenda which you had in mind for today?

MR. HANSEL: Without, and I don't mean this facetiously, without a whole lot of questions, 15 to 20 minutes. 30 minutes at the most.

MR. EISENHUT: I want to make the assumption that if the pace continues the way it's been over the last few pages. I had the pleasure of going over the project with a number of people, and last night we finisned a couple, three nours late. So I was just trying to get an idea.

MR. COUNSIL: Based on what I've seen thus far this afternoon, I would say approximately two hours.

MR. EISENHUT: Okay. What I would like to do, at the end of that, I would like to ask if there is any members of the public. I'd like to ask the official intervening organization whether or not they have any comments up to this point at this time.

And I would like to entertain those comments later on today. So I'll go ahead and plan those in the agenda, to hear any comments or feedback. Obviously there's going to be more than ample time down the road, but I wanted to give them ample time.

MR. NOONAN: The only other comment I wanted to make, the staff is looking at the program plan from our prospective. We're looking at, of course, the design issues and the -- and the common treat of -- both these issues the staff is looking for that.

I can understand we have to hear from Howard more. I think we will be looking at, how does Howard Levin address quality assurance issues, and how are those things communicated to John Hansen? Okay.

MR. HANSEL: Okay. Let me take just a couple of minutes and make sure that I -- I want to try to clear up any misunderstandings that exist on this other subject. We're going to put the hardware in the

populations.

We will select random samples from each of those populations. Within those populations on a population by population basis, we will define attributes for inspection. You may have, and I don't know what the numbers are. I have seen attributes for those ranging anywhere from 78 to maybe 15. You will have two samples. One will be a random sample totally selected at random, of 60.

You will have a second sample that currently is planned to be based on those systems required for safe shutdown.

There will be an inspection checklist put together on a population by population basis that will be based upon released drawings and specifications, and any codes or standards that they reference.

We do not plan to inspect for attributes that are not significant. If there is an attribute that can have any impact, any impact on the safety of that hardware, we're going to inspect for it. I would not expect us to go out and inspect for -- let's classify them as cosmetic type defects. That's the only ones that are going to be left out. I want to make certain that you feel comfortable with that.

Any deviations from the drawing or specification

that the inspectors pick up will be documented. They will be turned over to the project on an NCR system, and each one will be evaluated on a case by case basis to determine if in fact that defect as it stands on that piece of hardware, is it significant enough to cause that item to not perform its safety related function.

If it is such, it will be classified as safety significant. And then we will go about the root cause and generic analysis or generic implications analysis on a case by case basis, what caused it and what are the implications of that defect.

We may find that that leads us back into more hardware inspections, and a sample re-expansion or a sample expansion. We may finds that it leads us off into other types of investigations or other action plans.

But we will stay with that until we understand tne causes and the implications, and we have made recommendations on how to fix the issue or issues. That's the total intent of that self-initiated program.

When you take the 30 populations, approximately 30, all the attributes and all those inspections and the documentation reviews, we will have covered all of tne work processes and inspections of the type tnat are on that plan. Okay. Let's move right along.

MR. CALVO: Not yet.

MR. HANSEL: Okay, Jose.

MR. CALVO: This populations in here, I'm looking at some of the -- you indicated they have to be homogenous, based on the attributes used in each population; right?

MR. HANSEL: Yes.

MR. CALVO: Now is your program plan -- is going to indicate -- you're going to analyze, for instance, the electrical design for the construction design. And you come up with population for conduit population, for cable tray electrical equipment installation.

And I understand you -- in the recess somebody said, "Well, maybe we had to put instrumentation, some kinds of words not indicated."

But that's beside the point now. On the cable, for instance, I got cable terminations, wiring separation, and all that -- those are the attributes. Okay.

Now assuming that for any one cable in that plan, all the attributes are homogenous to the sample that you have picked up. That's what you saying?

MR. HANSEL: Yes.

MR. CALVO: Then you're going to have to prove that case. For instance, if I'm saying terminations, attributes to cables, if all the terminations in the

plant are homogenous, are same, or you can give the same, tnen they become some attributes that are not the same. Maybe --

MR. HANSEL: Then I may have to have another population. This is a preliminary list.

MR. CALVO: That's very important, because the self-sufficient program that you had -- my wish is going to come from this one. And I have got to understand, if this 30 populations are representative of what is on that plan, and the attributes under those populations are homogenous, so the case you have got to present in the program plan is the basis, the rationale, how you arrive to these third populations, and the attributes and the homogenous for those attributes. You're going to do that.

MR. HANSEL: A certain amount of detail will be included in the program plan. Yes, I think enough to satisfy you. The details of that are in detail procedures that we are developing and have developed at the site.

I think to really answer your question, you're going to have to come to the site and see the population descriptions, and the attribute list, and the check list to really satisfy yourself we have included everything.

MR. CALVO: I'm going to the site.

MR. EISENHUT: He'd love to go to the site.

MR. CALVO: Hold it. But you have also got to submit us by the 28th.

MR. HANSEL: We have given you sufficeint understanding to --

MR. EISENHUT: No, have to submit the detailed program plan whenever they're done with it.

MR. CALVO: They said by the 28th.

MR. BECK: That will not include procedures check lists.

MR. EISENHUT: But should include enough of the criteria, or how you go about ginning up this?

MR. HANSEL: We have to give you enough information to where you know -- you can understand what we're doing, and how we're doing about it. The specifics at the site.

MR. CALVO: Yeah. A little more than what you give us. Give us a preview now, we need a little deeper than that, to want to understand how you come up --

MR. HANSEL: We will do that. But for each of those steps on that flow chart, we have a detailed procedure at the site that's either develcped or is very close to being completed. It will get down to the really nitty gritty.

MR. CALVO: My concern is the foundation of it

right now. I would like to see how you put a foundation together so you can build it, the rest of it.

MR. NOONAN: John, you say those procedures are at the site now.

MR. HANSEL: We have, Vick -- what do we have?

MR. HOFFMAN: Seven out of the ten.

MR. HANSEL: Seven out of the ten procedures are completed. The other three are close, should be completed probably by this time next week. That's the detailed procedures, Vince, that tell our engineers exactly how to do those jobs.

How to identify the population, how to select a sample, how to prepare the check lists, and the detailed methodology of what that engineer needs to work with to do that job.

I think really that's what folks like Jose, Herb Livermore, and then others are going to --

MR. CALVO: Some of that. Not all of that at this time. You talk about implementation. I'm not wondering about the implementation of the plan. I'm wondering about the foundation of that plan. That's why I'm asking right now, is the foundation.

MR. HANSEL: We'll make sure you get that.

MR. SHAO: Okay. I have one question on the same page as -- what do you mean by mechanical equipment

installation? What kind of mechanical equipment do you have in mind?

MR. HANSEL: I can't answer that off the top of my head, Larry. It's any type of mechanical equipment, as compared. There's also electrical equipment installations on there. So I would say it's probably pumps, valves -- Al, give me some others. Just two or three.

MR. PATTERSON: Heat exchangers.

MR. HANSEL: It's that type of electrical equipment, Larry.

MR. SHAO: The reason I ask the question on piping, you have many, many items. But in equipment, you have one long. What's the difference between piping and equipment? In this case you can look in more detail in piping and less equipment?

MR. HANSEL: No. Again, I approached this list from -- now that list of mechanical equipment may be very long. But I approached this through work processes and inspection processes. And the disciplines required to install mechanical equipment usually are pretty well the same. Alignment procedures, rigging, installation, folding, torqueing, shimming, et cetera. And that's the way we get at it. Okay.

All right. In addition to the -- see, where we're

at, in addition to the safety significance evaluation, we will also take the deviations that did not result in deficiencies, and do an analysis for adverse trends.

And then from there if we see that there is an adverse trend, we're going to go about the analysis of root cause and generic implications for those. And that may spawn new evaluations. Next chart.

I have six charts that I'm going to whisk through here rather quickly. I think most of us are familiar with what you can do in root cause analysis. All I have done here is list some of the potential root cause -- root causes that you might run across.

Design, we're looking at unclear or un -- or conflicting directions of the field. We're looking, really, at constructability issues. "Was it unclear, and as a result, did it get constructed wrong?"

Looking at documentation, we may have had an incomplete drawing, incomplete procedures, conflict between drawings and procedures or specs, and so forth.

Looking at workmanship, there's a wide number. You could have inadequate standards, tooling, training, selection of personnel, insufficient time, whatever.

Moving right along to inspection, we could have some of the same kinds of root causes. Either the -- am I way ahead of you?

MR. EISENHUT: Yeah. I think you are. I'm still thinking about three slides back.

MR. HANSEL: All right. I didn't want to dwell on these. We can if you like. It's just a shopping list. It can lead you down to root cause analysis. You just have to take the data and try to found out what caused that particular issue.

MR. EISENHUT: And there's a large number of different things that can get you there.

MR. HANSEL: That's all I'm showing by these six charts.

MR. EISENHUT: Documentation, you're starting your effort, though, with the assumption that the design drawings are accurate?

MR. HANSEL: Yes.

MR. EISENHUT: Let me understand again then, from the previous discussion. In parallel with your effort, there would be some checking to see that the documentation drawing, the detailed drawings, are accurate.

MR. HANSEL: That would be drawn through Howard Levin's effort, design accuracy.

MR. EISENHUT: Right. And what can you see from the time when would you see there would be enough of a feedback so that you would know whether or not you need

to reconsider some of the work you are doing.

Are you talking six months down the road, or are you talking about two months down the road, where you start getting some feedback as to whether or not the detailed drawings are accurate or not? I'm trying to get a feeling of whether you're going down one path the long way before you get that feedback, or how you propose to do it.

MR. HANSEL: I really don't know what that time period looks like.

MR. MARTIN: Are you, apart from that, establishing a time line? Are you scheduling your resources to work -- start working in the areas in which Levin's group's, confirmation of design, is currently working, so time lag is the least?

MR. HANSEL: We're going to be in parallel. Yes, we're both working --

MR. MARTIN: In the same topical areas in terms --

MR. HANSEL: Yes. We're trying to tie that together. And I'm also attacking -- going to attack those areas of the plant first that we feel where there could be problems that would cause a delay in fuel load.

MR. MARTIN: Okay. But there you're dealing with areas in which you are concerned that there may in fact be -- there may in fact be deviations which are

different from existing design drawings.

MR. COUNSIL: Could I address that, please? Bill Counsil. I'm right across from you, Bob.

We have two programs. John's program is assuming the design is correct, because what he's trying to determine, was the plant constructed in accordance with the design? That does not say that that design is right.

Howard's program is trying to ascertain, is the design in fact correct. If the design is incorrect, John's not going to get back into it again, because if the design is in fact -- unless there are attributes that he has to reinspect, if the design is incorrect, I have got to fix it.

MR. MARTIN: Goes back to the project.

MR. COUNSIL: It goes back to the project where I have to either rework or disposition. Do you understand the difference between the two?

MR. EISENHUT: No. I understand -- and what I felt, really looking, I think there may be a third piece in there. And I was just really looking as to when.

My first question was when we would start expecting to see Howard's effort produce some feedback on -- he's looked at enough of the design, and start getting a feeling in some of the areas.

But really my question is, the second part of the question, really, is I think there's sort of two pieces. The basic design may be adequate. Then someone goes and makes detailed design drawings out on the field, and they go through with revisions to the electrical drawings or whatever.

And the way you did it here with your drawings while the plant was being developed, you may have gone through 25 revisions with the same drawing, where if you went out to the DCC, which is fine, the basic drawing, then part revision, part revision you may have 25 revisions stacked up where you don't really have a final design. There was no final design for a while, other than original drawing plus sequential 24 more amendments.

And that was one of the things we looked at when which we went out and looked at drawings. So the original design may have been all right. There was design implementation through the design drawings and then construction adequacy.

So that's why I was really looking at the bridge in between, as the fact that the drawings, as to when you would start seeing the cycle closing itself, closing on itself at some point in time. I appreciate that they're sort of totally separate.

John's really looking -- you're looking at the adequacy of the construction. And the other one, you're looking at design adequacy. And the thrust of where I was going to come from was the interface between those two.

MR. COUNSIL: Well, part of what John is doing is the as built condition of the plant. He has to inspect the final design drawing. And if in fact that design was not translated through the system of revisions, when he goes out and looked for his attributes, he's going to find deviations.

And that would lead us straight back into the, quote, design drawing, and the as built condition of the plant. And now to answer you more specifically on timing of this, we'll start getting results out of his program in July. Howard's program probably in the August time frame.

MR. EISENHUT: I was thinking, there's a simple answer to this question. When Howard is standing here tomorrow, when are you going to start producing reports.

MR. COUNSIL: That should be the time frame of what we are going to be seeing.

MR. NOONAN: Let me ask you one question. Go back to design for a minute. You find out you have a problem

th design. You will say that you go back to your design. You find a problem. Look at design, that you're going to fix it.

The question I would now have, is that design, that same group of people, work someplace on that plant where they might have also had a problem with design?

MR. COUNSIL: That's a valid question, and that falls into our trending program and so forth.

MR. NOONAN: Is that Howard Levin's effort?

MR. COUNSIL: Under design, that's Howard Levin. And 'll explain to you on his baskets and how he's go. to trend it.

What he's going to do is tell you tomorrow basically that he's going to cover every kind of design activity, so forth, and all these activities. There will be trends in them, and any place that they touched, if there is a required expansion of a program, he will make sure he covers all of it.

MR. SHAO: I have the same comment as Vince here. He said maybe since design correlations is not doing the wrong design, but is it possible to say that the construction may have some over here also, construction somewhere else have the same problem?

MR. HANSEL: I'll be looking at that through

generic implications, either on a case by case or on a trend analysis.

MR. BOSNAK: Could we add to where we are now? Where does Stone and Webster fit into this whole picture, since they are -- we say piping and pipe supports, and then we're told they're all going to be redone.

MR. COUNSIL: Are you ready for my answer?

MR. BOSNAK: Any time.

MR. COUNSIL: Okay. Stone and Webster is not on a sample basis. Stone and Webster is doing a hundred percent redesign, reanalysis check of the as built condition of the plant for all class two and class three piping supports. And they will explain that to you tomorrow. They are not on a sample basis, period. There will be a third party overview of the Stone and Webster effort.

MR. EISENHUT: Right. But there would be no need to go back. And you're not then doing a sampling of the previous work, design work in that area, if it's going to be redesigned. Or not redesigned, or rechecked, all the way across.

What you're saying is that -- and I would take it also then, that if you decided to go into another area with a larger group, let's say, and just literally

recheck a hundred percent, then that piece would drop out of the program of Howard's end, at least from design, except for construction, you would look to see if it's built adequately. And if you found a deficiency, you would look to see whether that generic deficiency may exhibit itself under different places.

MR. COUNSIL: That's right. Root cause, generic implications. Even if we find that type of problem, which I had anticipated that we might find in piping, and that's the way I'm going to have to do piping to get -- to do a hundred percent, if in fact the population samples that Howard finds or John finds requires a continuing reanalysis, expansion of the entire program, it might come to a decision making process, we'll just do a hundred percent. Yes, sir.

MR. HANSEL: Okay. This is Ed Jordan. I have got a question about the sampling. Is there any relationship between the sampling for design and the sampling for construction review?

MR. HANSEL: Any relationship?

MR. JORDAN: Relationship between the two sampling programs? Are there two samplings programs?

MR. HANSEL: There are two sampling programs.

MR. JORDAN: Independent?

MR. HANSEL: Independent. We have, however, found

one case where it's convenient to define the same sample, and be used for both purposes.

And that's in conduits. And that's primarily because of the way we can get to the population through isometric drawings. That's the only case I know so far.

In that particular case, we will both agree upon the definition of the population. The sample will then be selected randomly. We are going to develop one checklist for inspection that includes both the attributes that we need, and the attributes, the design adequacy we need.

And then we'll go inspect the hardware. The data will be provided to both groups. So far that's the only one. But it is a possibility. We may have others, I haven't seen it yet. But that one we're going to do for pure economics. We can do it together and quickly, and satisfy both reasons and still be statistically sound .

MR. JORDAN: Okay. Let me ask you one more about sampling, then. The homogenity of the sampling, does that include who is responsible for the work activity?

For instance, for putting in supports, anchors, for instance. You may have several different contractors performing that activity to have a homogenous sample. It may not be appropriate to have one large sample out

of that whole set.

MR. HANSEL: We're alert to that. We're looking at, waiting to see that population, where we have enough coverage, say two or more contractors. We may have to have two populations. That's why it's a preliminary list, again. But we do look at that possibility.

MR. CALVO: Wait a minute. You confused me. Talking about the design effort, design review adequacy. I was under the impression that there was never going to be population for the sound review. It was based on the basis, I will see how you can do the design review based on population.

I don't see how you can improve homogenity there. I thought maybe you were talking about the population with respect to the walkdown. That is part of this sound review? Is that what you're talking about?

MR. HANSEL: Guilbert's got his hand up. Let's let John -- he's been closer to Howard in that respect.

MR. GUILBERT. Jose, you're going to hear about lot more about this tomorrow. The specific example that John gave you -- be associated with an action plan that doesn't fall --

THE REPORTER: I can't hear you.

MR. GUILBERT: -- action plan that doesn't fall in the category of the self-initiated design

verifications. That's another design adequacy action plan. And actually it seems from the TRT issue.

MR. CALVO: But it really provides us with the perception, but I don't believe it's the right perception. Now we're going to do a design review, the construction review, so.

But if that's case, I see some problems coming from homogenity with the design review. So if you want to say that the record will be cleared up tomorrow, that will be perfectly all right with me.

MR. GUILBERT: At the risk of stealing a little bit of Howard's thunder, as you can see, John Hansel's approach is basically starting with construction and work activities, leading the populations, leading the attributes to evaluation.

Howard's self-initiated design verifications, which is only a part of his design adequacy program. It's a self-initiated part, starts with design work activities as its parallel. And results in selection of appropriate systems that he will review through a set of attributes, as it were. Not the same kind of attributes, looking through design process.

His intent -- he will be presenting to you an initial set of systems that he's moving out on. He's got a verification program to insure that either those

cover the full range of design work activities, or that we add additional systems or parts of systems until we do accomplish the full range.

Now there's a quote, unquote, parallelism in the sampling routine; really gets down to the depth, like the number of calculations that he looks at on attribute A in system B. Okay.

It won't be done on a purposely statistical basis, I don't believe, but it will be done on -- there's only 10 calculations in there. It will probably draw 10. There are a hundred. They'll probably do whatever sounds like a representative number. You can ask him tomorrow.

MR. CALVO: Okay.

MR. SHAO: Tomorrow, Mr. Hansen, you will be here tomorrow?

MR. HANSEL: Oh, yes. You bet. Wouldn't miss it for the world. Moving right along.

Again with potential root cause, we would also look at corrective action programs to see if we had recurring deficiencies that had not been fixed by earlier correction action programs.

We would also look at records, was it a problem that was attributable to incomplete and incorrect illegible records.

The trending program has its -- as its objective goal --

MR. EISENHUT: Excuse me. Can you go back one more? The last entry says unauthorized signature.

MR. HANSEL: Yes.

MR. EISENHUT: Do you think there is -- is that just a potential root cause?

MR. HANSEL: Just a potential.

MR. EISENHUT: Okay.

MR. HANSEL: I don't know what I'll find there. Just a potential. And that's a shopping list of those that I have been using for a number of years from different programs. And there's probably a list twice that long if I wanted to develop it.

The objective, of course, in the trend analysis, we're looking for adverse trends, and we're apt to identify deviations. If you take them by themselves, they're really not all that significant. But if you take them in the collective sense, then they may have some implications. Next chart.

What we're really after in the trend analysis, again, and I have been asked the question many times, "Can you identify what the level is when you have a trend?"

I don't know what that number is. But it's when

you have a trend that indicates that you may have a problem with the population of hardware, a certain attribute, a certain process, a certain specification, a certain inspector, a certain shift or whatever.

It's any indication that says that you may have a trend, and it says that it's undesirable. That number will vary, again based upon the complexity of the deviations, because not all defects or deviations are of the same significance. If I go back to Ed's point, I could have critical, major, minor, and sort from that viewpoint.

So the aspect of identifying adverse trends really is about -- that's the way we go at it. We analyze those deviations on a population by population basis, and look for trends.

If we do find what we classify as adverse trends, we're going to go after the root cause of that trend. And what are the generic implications of that trend, either in that population of hardware, other populations of hardware, or in a programmatic issue.

But what do we need to do, to research that out, to be certain we're satisfied ourselves that we have nothing further to worry about in that area. Next chart.

MS. ELLIS: Excuse me just a moment. I don't know

how the other pages were, but I didn't have that particular one.

MR. EISENHUT: I think the last page was missing.

MS. ELLIS: I wanted to be able to give it to the Court Reporter, so it will be in the transcript.

MR. HANSEL: I'll make sure that happens. Now we're going to talk very -- yes, Bob?

MR. MARTIN: John, before going on to these last two elements. In the reinspection program, you identified one box that you didn't dwell on, but you discussed the verification packages. I presume this is just a work package. It's a combination of --

MR. HANSEL: It's a work package.

MR. MARTIN: -- the inspection to be done?

MR. HANSEL: It's got the drawings, the specs, the checklist, the specifications, any special instructions. It tells him -- it give him the NCR's he may need for that inspection. If there are drawings or specs that are not in there, it tells him where to go get those. It's a detailed work package

MR. HANSEL: In looking at the latter two boxes, we will receive information from other CPRT issues, action plans, and from other investigative programs. I think most of you are familiar with the other issue plans

written by the other folks. And you will hear more details tomorrow on the other investigative programs. Next chart, John.

Going to talk just briefly, because I have covered most of it today. We have interfaces. My team has interfaces with a number of folks, certainly the senior review team, the other review team leaders, and issue coordinators, the design adequacy group.

There will be occasion when we need to talk to the authorized nuclear inspector to be certain that we have no disagreement as to our inspection procedures and attributes. We will have and certainly need to interact with TUGCO management and Brown & Root management, scaffolding, access to drawings, inspection records and so forth. And we have available to us Doctor Webster, a statistician, that supports us in the review team.

The kind of things that take place between those interfaces are discussed below, and this is -- we exchange excessively on QA/QC issues between ourselves and the other groups, from them to us and from us to them.

We have and will continue do assist them if they're going to do some inspections in the electrical area. This is a good example. We talked with Martin Jones, and developed the actual inspection procedures that we

used for his inspections.

We then certified our people, and went and did those inspections for him, analyzed the results on the inspection formats, and provided that data to him. We'll be doing that in a number of other cases. In the case -- well, there's just a number of others. We will conduct for them inspections and documentation reviews as required.

MR. CALVO: May I ask you a question? You mentioned the electrical established procedures. Who developed the procedures? Martin Hills or you people?

MR. HANSEL: The actual procedures we developed, and he approved.

MR. CALVO: Right. And that's going to be in accordance with some kind of QA/QC? What kind is the QA/QC requirements developed by your group?

MR. HANSEL: I'm not sure I'm understanding you. We develop the checklist for those inspections in accordance with the TUGCO and the drawings and specifications for that particular hardware.

MR. CALVO: Which QC program controls those inspections?

MR. HANSEL: Mine.

MR. CALVO: All right.

MR. HANSEL: It's totally independent from the

project. It's third party, independent.

MR. CALVO: Any corrective actions as a result of those inspections, who does, though?

MR. HANSEL: We provided those -- that information to the project generated YNCC.

MR. CALVO: Who controlled QA/QC? Controlled NCR 's or corrective actions?

MR. HANSEL: The project, after we identified the deficiencies, we notified the project, and assured ourselves that NCR 's were written. It's in the projects. And then they close them out. They work them and close them out.

MR. CHANDLER: Larry Chandler again. To follow-up on that. The project will be using what QA/QC program?

MR. BECK: The project.

MR. JORDAN: The project's?

MR. BECK: TUGCO.

MR. JORDAN: Will that program be subject to any implementation prior to -- in other words, to go back a little bit, a number of deficiencies have been identified in a variety of staff documents over the last few months dealing with programmatic deficiencies in a QA/QC program.

And in my own mind, I'm wondering whether further implementation of that program, uncorrected, will lead

us to the reasonable assurance kind of finding, that, you know, we have been looking for as to the end of the process.

MR. BECK: There have been a number of bodies examining Comanche Peak from a QA/QC standpoint, including the initial evaluation that was done at the beginning of the summer in 1984.

With regard to the adequacy of the programs in place and being utilized, visavis continued construction, for example.

We have looked ourselves very hard at the output that's come from the investigation that's taken place so far. We see no reason to not continue using the program as it exists today for continued construction activity, whether it be correcting deficiencies that are determined as a result of CPRT, or whether it be in the normal course of construction.

We are not blind in any way, shape, or form to the necessity when it arises from time to time to modify the program, to improve it. And we're doing that on a continuing basis as it goes on.

But we are using our program to do project related work, as I said, be it construction, as things progress, or be it correction of deficiencies that have turned up from whatever source.

MR. JORDAN: And, John, your comments would pertain in light of SSER number 11?

MR. BECK: They pertain in light of SSER number 11. Sure.

MR. CALVO: So, you know, one of your greatest challenge that we have to the QA/QC program was the inadequate, in your opinion, training with the QC and also the QC inspections.

And I guess what I'm saying, you look into our concerns on those areas, and you have corrected the procedures to incorporate your concerns.

And the next question is, why are you waiting to submit that to the NRC so we can review it, and give you some kind of acceptance so we can proceed. Because you risk it. All these inspections, and you may find out later on the NRC have some problems with it. You are proceeding at your own risk by adopting, going ahead with a procedure that we can challenge.

I mean a QA/QC program, especially in the certification of QC inspectors, who is going to help you make all these corrective actions. And you proceed on this basis, and later on whatever your corrective actions are, and we don't agree, is going to invalidate the results.

MR. BECK: That evaluation process is going on

continually, Jose. And I appreciate fully if there are -- that's one of the things the CPRT program is going to look at. And if that, quote, rework extends to QA/QC efforts that have been going on, or subsequent prior to the SSER number 11 issuance and needs to be redone, we'll redo it.

MR. JORDAN: My concern, John, is the cart doesn't proceed the horse.

MR. BECK: I understand. And perhaps in the nature of the conversation we're having there may arise in fact instances where we will have to revisit it. And we sure as heck will do so. Point taken.

MR. HANSEL: Okay. We will be talking again with the other review team leaders in the definition of our populations on the inspection attributes to put to lay -- to rest one of Don Landers' concerns, and also how we select our samples. Not for approval, but on a day to day coordination basis to make sure what we're doing is not in conflict with what they're doing.

MR. JORDAN: John? Larry Chandler? One more time, at the risk of beating the sample question. One more time, has any consideration been given to a biased sample as opposed a statistical sample?

MR. HANSEL: Yes. We looked at that. Those are very difficult to implement and highly argumentative.

MR. CHANDLER: Certainly the latter. But --

MR. HANSEL: Very difficult to implement as well. We feel that with our two samples, we currently have a good -- we have a representative sample of the population.

We have one random, and we have picked from those systems for safe shutdown. We did give consideration to that, and decided not to go that route. It's a matter of what are you really after. And we feel like we need to test the population of the hardware. And this will do it, the present approach. John Guilbert?

MR. GUILBERT: I just had a point. That's conditions -- if when we find safety significant deficiencies on the adverse trend, the subsequent standards required may include the -- on where we find the root cause of that.

MR. HANSEL: I failed to point that out. If we fail a sample, we will expand initially, again to address the population. And that will still be statistically. If we find a need to expand further, then we may well go after a targeted population to search out some area of concern. And that -- I'm going to classify that as an evaluation type of sample.

MR. CALVO: But you have still got to move it on the basis, that you don't find anything wrong with it, because you're going to reach a conclusion on reasonable

assurance. If you find nothing wrong with it, whatever you did, it won't be sufficient to come up with a reasonable assurance.

MR. HANSEL: That's right. That's correct. And that's why I said, if I expand, I'm going to continue to expand until I can continue to address that population statistically.

MR. CALVO: If you find something wrong with it. But if you find nothing wrong with it, you have still got to prove your case.

MR. HANSEL: Right. I understand. We will also be talking and exchanging information with those folks, since they're going to have a lot of detail knowledge of the current design in terms of what is safety significance.

Now the data that we have received from this point now, we will have had certainly the results of our inspections. We will have had information from each of the specific ISAPS. We will have had information from each population of hardware by hardware reinspection and documentation. We will have the information from our root cause and generic implications evaluation. And we will also have information from the adverse trends evaluation. Let's go to the next chart, John.

That will lead us then into our collective

evaluation process. And that's going to allow us to take the aggregate of that data from those five sources on the one chart. That we can now look for trends and relationship that would not be apparent when you look at it on a case by case basis.

We anticipate that this will allow us to draw conclusions about the adequacy of QA/QC program and the adequacy of the of the installed hardware. Next chart.

Based upon that evaluation, we may in this collective sense -- now we went through it on a case by case basis, population by population basis. In the collective sense, we may still see some generic implications that need to be searched out. And may well result in the identification of new issues. And it's through that collective evaluation process that we'll do that. Next chart.

We'll also be looking at that same set of data to evaluate the adequacy of the QA/QC program for construction. And again, here we'll be looking at the root causes and generic implications. And again in a collective sense, relating back to 10 CFR 50, appendix B.

This will also allow us to apply any lessons learned from this process to unit two construction that remains to be completed, and possibly into the operational

phase. But we'll look at that at that point in time.

MR. MOLLONSON: Excuse me, John. If you're going to do an evaluation of the results as they relate --

MR. HANSEL: I can't hear you.

MR. MOLLONSON: You're going to do an evaluation of the results, collective evaluation of the results as they relate to 10 CFR 350 appendix B criteria. And where does that information then go?

MR. HANSEL: If we find any more trends in there that tell us that we have not satisfied any issues and concerns, if we find nothing further that leads us, then we're going to have to say we feel that the QA/QC program is adequate.

If at that stage of the collective evaluation we identify any more concerns or trends, we're going to have to go research them. When we finish this process, we should be able to address the QA/QC program.

MR. MOLLONSON: I can't envision why the comparison to violations of 10 CFR 50 are meaningful to your report at that point in time.

MR. HANSEL: When I finish, I would like to be able to say -- to make two statements. One is as to the adequacy of the hardware. And, secondly, the adequacy of the QA/QC program. The SSER is certainly take issue with a good bit of QA/QC program. It's my charge to

evaluate that.

MR. EISENHUT: Is it conceivable then, John, at the end of your effort, you would come up and say, as you look at the SSER number 11 and as you look at the result of your work, you could ultimately come down and say that, "Here is a list of" -- in our jargon, "Here's a list of violations of appendix B."

And enumerate them and say here is where you felt the program did not really do what it was supposed to during that time. I guess in essence you would be agreeing or disagreeing with what's in the SSER 11 at some point, plus whatever you find in the broader scheme.

MR. HANSEL: That's conceivable. Our final report in each -- and I will have a report on each of these, will address our opinions as to the adequacy of the program, and did it or did it not meet appendix B. And if, not what, remains to be done. And the same thing in the construction area.

As I indicate from those two evaluations, we'll also be able to make recommendations to the utility as to any corrective actions or other improvements they need to make for unit two construction to be completed and the operational phase. Next chart.

This is our organizational chart.

of effort at the Braewood facility, and brings to this project that experience.

MR. EISENHUT: When you say consult, is that a full-time consultant?

MR. HANSEL: Right now it is. Right now it's been more than full-time.

MR. EISENHUT: All right.

MR. HANSEL: Moving down to the safety significance evaluation block, we have not identified a person there yet, just primarily. We haven't been able to get time with Bill Counsil. He stays busy. We have been busy. That's a very key job. We need the right kind of people in that. We need senior people with good engineering background.

And that full function will be done by Stone and Webster personnel. And Mr. Counsil wants to select at least the top five people in that block. And then from that level below, we will have additional people supporting that area.

The programmatic issues, Paul Ordstat is not here. Paul Ordstat has a BS in mechanical engineering. He's a senior engineering consultant with us full-time. He came to us from TVA with 11 years nuclear, 13 years quality assurance, and has worked on three plants.

Al Patterson, who is in the back of the room,

comes --

MR. EISENHUT: Excuse me. Before you leave the last gentleman, is he on loan from TVA, or --

MR. HANSEL: No. He's our employee. He's an employee.

Al Patterson comes to us from Stone and Webster. He has a BS, mechanical engineering, 24 years experience in coal, gas, nuclear plants, and in both -- in engineering design and construction.

He's still been very much active up until about the last week or so in the Braewood effort, and headed up this very same effort at Braewood for Stone and Webster.

And incidentally, in that particular job, ERC acted as independent overview group of that effort. So Al brings to us a lot of experience. He's been at Niagara, Mohawk, Zimmer, Millstone and Surrey.

Dennis Alexander comes to us from the Houston office of Stone and Webster. And he has a BS in industrial engineering, with extensive navy nuclear schools. Graduate or -- I'm sorry. Not a graduate. Attended the nuclear power reactor safety course at MIT. Sixteen years experience in engineering. Has worked at Riverbend and 9 mile point, too.

Chuck Spinks is not here, the supervisor of

inspection. Chuck is a certified level 3 inspection, and a level 3 mechanical inspection, and has 12 years of nuclear experience in quality engineering and in inspection. Had 20 years in the navy, which a part of it was in nuclear.

And I don't know what they did in the army. But apparently he had some experience in the army in nuclear.

All highly qualified. Again, you may want to mark up your charts. The safety significance evaluation group is Stone and Webster, and that's what they will do. Evaluate deviations for safety significance. They will be high level senior people. The programmatic issues are the category one issues I talked about from external sources, as are the hardware issues under Dennis Alexander.

Al Patterson has a self-initiated program, and primarily that group is made up mostly of Stone and Webster engineers.

MR. NOONAN: John, the Stone and Webster group you have identified here under safety significance. Do you have names of those people?

MR. HANSEL: We have probably half a dozen names. They're not needed yet at the site. They won't be needed until we really start cranking out the

inspections. We will have most of those people on board by mid-July in the inspection block.

Chuck Spinks is an ERC employee. We have approximately 14 ERC inspectors on site now. They will be supplemented by inspectors from Daniels Engineering and Construction out of Greenville, South Carolina.

The block in the upper right-hand side, you will notice procedures and engineering assurance. We do have our own QA plan. We do have procedures, and we will conduct audits of ourselves. We also have a records and management function, and our own training and certification agent.

MR. EISENHUT: John, before you do the five mainline boxes across the bottom there. Then with the exception of the safety significance evaluation and the inspection group, the other three heads are in fact TUGCO employees?

MR. HANSEL: No. None of these are TUGCO employees.

MR. BECK: ERC.

MR. HANSEL: These are all ERC. There are no TUGCO people in here.

MR. EISENHUT: They are all ERC employees?

MR. HANSEL: ERC or subcontractor to ERC.

MR. BECK: All third party.

MR. HANSEL: Totally independent.

MR. EISENHUT: My question was the three in the middle, are in fact ERC permanent employees versus the two on either side.

MR. HANSEL: No. Let me go across the safety significance. Will be Stone and Webster. Hordstat, ERC employee. Patterson, Stone and Webster.

MR. EISENHUT: Okay. He's still with Stone and Webster?

MR. HANSEL: Alexander, Stone and Webster. Spinks, ERC employee. Next chart.

Let's go to the other one. Our report structure, very briefly. We will have results reports for each and every ISAP.

For the hardware reinspection and documentation program, there will be a results report by population, and a summary report of the total effort. We will have access to the results reports from the other teams issue specific plans, and also the other investigative programs. Those will all feed into the collective evaluation boxes into both of them.

We will prepare a report on each of the collective evaluations that we conduct, and a summary report on our total effort.

Now let's go back to the schedule, John. We are

well on track, as I indicated earlier this afternoon, with our category 1 issue plans. Several of those are even close to being ready for summary reports to be written.

Our category 2 ISAP on the self-initiated program, we have that documented in an issue plan, wnich you will receive. We have ten procedures below that level. Seven of those ten are prepared.

We have four of the 30 populations defined. And 4 check lists prepared. We have about 30 engineers on board in that effort today. And I would estimate some 7 to 8 other support personnel. We have detailed schedules for every population, and how that effort will be conducted. And that program is well on its way.

We anticipate being in a position to conduct the first inspection the first week of July. We have inspectors on board who are certified to ANSI 4526, and we nave Daniels people coming on board this month. So by July 1, we're going to be ready to conduct the first inspection. I think we'll do that that first week of July.

MR. SHAO: Is this schedule including time for corrective actions, supposing you found something wron?

MR. HANSEL: Again, Larry, most of the corrective actions that need to take place will be provided to the

project. The only thing, this schedule is success oriented, and it assumes that we have no sample expansion.

If we end up failing a sample or having a major problem on an individual action plan, this schedule will not hold.

MR. SHAO: This is assumption schedule?

MR. HANSEL: Yes. Any corrective actions again will go to the project for their implementation. I think the rest of that stands pretty well true. We hope to finish the last inspection no later than early December. We will start preparing or conducting our collective evaluations when we finish up the first individual plans and the early populations. We would anticipate producing a final report sometime shortly after the first of the year. As John said, in the winter.

MR. EISENHUT: Let's see. Corrective actions that -- corrective actions that get sent over to the project. On this schedule, obviously they can be coming out all along. But when would you expect the last corrective action to come? Would it be before the final report, or would it be in the corrective evaluation program? Where would the last collective actions -- when would they be sent to the projects?

MR. BECK: Darrell, I --

MR. HANSEL: Hopefully there's none that come out of here. But there may be some that come of the -- of this collective evaluation.

MR. EISENHUT: End of December, '85?

MR. COUNSIL: Should be.

MR. EISENHUT: Should be. Now the other question, then, is when we, the NRC, be seeing the products of this effort? Obviously, I don't think you would want us to go away and come back to see the final report January, end of January, 1986.

So I don't see a line anywhere on here where it shows interim reports or progress reports, or any kind of summaries of category 1 work, category 2, et cetera. Where do you envision on here, or have you thought about when you would see interim reports coming out of here, or have you envisioned that?

MR. BECK: I think there are two different areas, Darrell, we need to talk about in that regard. One are interim progress reports with regard to the entire program where we are, and with regard to the schedule that you see here, and that Howard will be talking about tomorrow.

The second aspect is when we finish issues specific action plans, we're going to be producing result reports

as a result, as the end point in those activities.

What I would like to do, what I'm thinking about, is to provide, those not as they dribble in one by one, but say maybe on a monthly basis. And the first batch I anticipate being ready for release toward the end of July, provide a package. So for discussion purposes, I would put that on the table right now.

The SRT is going to be evaluating the end result of these reports as they are produced. That process is part of our requirement and our procedure that SRT does review them clearly. And the specific ISAP reports will not of course contain anything as far as generic implications. That's not going to take place until the end of the program. We're minimal.

MR. EISENHUT: Okay. I think we agree that there needs to be some vehicle for those reports, be they the individual issue reports, or however we can work that out. That perhaps a monthly report would do it. Just transmit them in or whatever. But I think that's something we do want to work out. And I think not only on this program, but on the other programs we'll here about tomorrow also.

MR. BECK: Yes.

MR. EISENHUT: To make sure we can be following what's going along as we do it, sort of staying in tune,

not waiting on a final report at the end of the line. So it's something I think we'll need to work on. But off the top of my head, something like a monthly report isn't unreasonable. I think there's a number of things like that we need to work out.

MR. HANSEL: Okay. Next and last chart. Just in summary, this was the second chart that I showed you. I feel that by these actions, there are individual plans, and our self-intitiated program that we will be able to provide reasonable assurance that there are no undetected and uncorrected safety significant deficiencies in the hardware.

Any final questions?

MR. WESTERMAN: Tom Westerman. You made mention to a QA plan and audits. Is that going to be prescribed coming the middle of June?

MR. HANSEL: We weren't planning to. We have it on site, and we govern ourselves with that. Wasn't planning to submit that.

MR. DENISE: Dick Denise. I have a question, John. Region 4.

You mentioned in your organization chart about the qualifications of the people and about their independence. I think you, in response to a question about the inclusion of TUCCO people, you said, no, this

was a completely independent effort.

You made a side remark. And I don't want to overdraw it. You said Bill Counsil was going to select the people. Is that what you meant?

MR. HANSEL: No.

MR. DENISE: Some remark like he was going to select the top five people.

MR. HANSEL: Bill Counsil is concerned, as I am, that we get very key people in that operation who do the safety significance evaluation. And he's got an interest, and I think he should be able to voice his opinions. Very key people.

MR. DENISE: You didn't mean he was going to select the people?

MR. HANSEL: No. I'm sorry if I said that.

MR. BECK: Dick, I think it's important to recognize that SR, that is -- has a function as far as the qualifications and the acceptability of those professional credentials on the part of all the review team, as this thing is evolving.

So, check point number one is mine. When Bill came on board, and we began to examine the status of the projects at this point, he pointed to that category, and he said, "I want to be darn certain that the people who fill that slot are qualified to make the evaluations

they are." And insisted on being part of the approval, if you will, in that respect.

MR. HANSEL: They're going to be making some of the most critical decisions that we make. And he and I and everybody else want those people to be the very best people we can get.

MR. DENISE: Okay. Well, in that sense, I understand it.

MR. HANSEL: Any other questions? That completes my presentation.

MR. NOONAN: I guess I would like to ask if there are any other staff questions to John Hansel at this point in time?

MR. TRAMMELL: I'd like to get back point to the safety significance. I don't need an answer to it right now. I would like to make the point. Something is deemed to be safety significant, it seems you're painting it all with the same color. It's a yes or no question, basically.

And I can see things that would be critical of safety importance, and others that would constitute a mirrors no ends to an operator, which are still in the safety related basket, if you will, or safety significant.

And I would think that you would focus your

resources on those items that are going to produce the biggest safety bang for the buck, so to speak, and not those which may be of some arguable consequence, but are not in the important category.

MR. COUNSIL: Bill Counsil. Let me take a shot at it, please, Charlie. Looking at safety significance, the SRT, Stone and Webster, whomever in this review process, will look at the defect from the point of view, is that piece of equipment or that hanger support, whatever, is it capable of performing as a tendency function? That's a go-no-go type check.

So -- and that is looking at, quote, critical safety parameters. Straight bill, no-go. The other part of this whole thing is that, even if they say it is capable of performing its intended safety function.

But -- is a criteria of FSAR techniques with the NRC or whatever, that will flow to the project team as a nonconformance. And it still may result in changes in the plan, because it's a deviation from commitments we have made.

So I don't want you to get the idea, number one, we just go or no-go. Or, two, that we're not going to do anything about immediate deviations because we are. Does that clear it somewhat to you?

MR. TRAMMELL: No, not completely. Let's give it a

couple of hardware examples. Let's say you find an RTD, or a vice table is not properly designed. And if that thing failed, it would produce a one out of four trip in the control room, and cause the operator maybe some minor annoyances. Maybe not really a huge safety problem.

Compare that to safe, let's say pressure vessel bolting, where you found something's wrong on the bolts, which you can have much higher significance in terms of plant safety.

In other words, just a huge difference between those two things. And I see you're going to do root cause on both. And you're going to do the same things to both. And it seems like you could focus more effort on the one --

MR. COUNSIL: Well, obviously the decisionmaking process on the bolting, in my opinion, and I don't want to presuppose what the safety review team is going to do, would obviously raise greater concern. The one you brought up with on a potential problem with an RTD, as far as safety significance is concerned.

You're as well aware as I am if it in fact fails, and gives you a one out of four, or one out of the three as a trip, it's failing, is a separate direction. It's a much lesser concern. It would be a reliability

concern to me. And I'm going to do something about it.

But, obviously, I think, and there you do, it would just go back to project. That's the way I would interpret it, on the two specific examples you gave me. And again, I don't want to presuppose what this group is going to do.

MR. CHANDLER: Bill, as -- could using, reference to part 21, assist in finding safety significant at all?

MR. COUNSIL: It may or it may not. A part 21 report can be a failure of a vendor's quality assurance program, as an example. And, you know, on some of these reviews we may find that. But that doesn't mean per se that that piece of equipment could not have been performed, it's intended safety function. It presents a problem to me on project. But it may not as far as safety significance is concerned.

MR. CHANDLER: Has any part been given to using part 21 as a definition?

MR. COUNSIL: I can't answer that question, because I have not reviewed, quote, the safety significance procedure. That's being done in Mr. Hansel's area.

MR. EISENHUT: Yeah. And I'm not sure -- I would have problems if they did. I want to make sure we -- it doesn't sound like we're suggesting not to go that way, because there may be difficulties there.

MR. SHAO: One thing you have to watch out, even though you say it is still safe. But you throw some margins, a lot of criteria efforts are the -- in doing margins. If you say it can still performs the function. But in the meantime, you lose the margin, we would have problems with that.

MR. COUNSIL: I thought I addressed that, Larry. I told you that a flow back is a nonconformance report, such that I on project, as to if I have to address it, as to why I have lost the margin. And in fact if I have lost margin, it is a nonconformance. I have to address that problem. And that may result in equipment changeout, because of that loss in margin. But again that's for the project to address and for you to audit.

MR. SHAO: So long as you realize that.

MR. COUNSIL: I fully recognize that.

MR. NOONAN: I guess I would like to make one request of John Hansel. When you have defined the group of people who will be working in the safety significance area there, I would like to know who they are and their qualifications.

MR. HANSEL: Fine.

MR. EISENHUT: Yean. I think there's a number of things. We went through a number of areas, questions, concerns, issues, where obviously you folks are going to

have to go back and take a look through the transcript as a convenient way of enumerating what they are.

And in your submittal of the program plan, you're going to have to lay out your organizational structure, quite a bit of this detail, which is not officially on the record anywhere.

So you will have to. So you will have to try to lay that out. And certainly to the extent you can to the staff, where it needs additional information to try to wrap this up. So certainly the maximum, I think you have to figure the factors together.

Mr. Counsil, you had another item that you wanted to address. Then I would like to turn to Mrs. Ellis, for example, and see if there is any other items. So why don't we go back to item --

MR. COUNSIL: All right. I had asked you to understand, because I understand I need to correct the record from this morning in one area.

When I discussed SAFE team with you, Darrell, in particular, you asked me something to do with wrongdoing, the question. And I have got a very parochial engineering mind, from a point of view that wrongdoing, in my mind is a failure to build it right and design it right, or whatever. And that is translated into, quote, plant safety.

I do not have a legal mind, in that from a point of view that when you mention wrongdoing, the sense of what you brought it up, was that it was in the sense of such things as falsification of records and things of that nature.

Well, to correct that, I'm going to talk about plant safety and numbers of issues or allegations that have been raised to SAFE team. I was fairly close on the number I gave this morning.

As of May 31, 1985 there have been 642 total concerns brought to SAFE team. Of those 642 concerns, 185 relate to plant safety.

The balance of the 642 relate to matters such as, quote, occupational safety or industrial safety, if we will, personnel type relations, employee-employer relations, and law enforcement, such as theft on site.

I don't have, to my knowledge, any that would fill in the category that you asked the question of a wrongdoing. I know of none myself right now.

Now going back to plant safety. Of the 185 that have been brought up, investigations by SAFE team have been completed for 134. There are 51 that remain open today.

MR. EISENHUT: Good. I think that does help a lot. And I have to admit some years ago I would have

MR. EISENHUT: Okay. I think that helps me.

MR. JORDAN: One question from the numbers you were reading a moment ago. You gave some number there for employee/employer relationship. Can you characterize what that heading would cover?

MR. COUNSIL: What falls in -- that's in -- our concerns are numbered one through five. Number one on the list is plant safety. Two is security. Three is management. Four is industrial safety, and five is miscellaneous.

The employer/employee relations, things of that nature, fall in the category of 3, which is management. These generally all fall back into the management category, and -- do you need some examples of who -- what those might be?

MR. CHANDLER: It would help.

MR. COUNSIL: Well, a typical one might be, "I haven't received a pay increase for three years. Why not?"

And out of that grouping in management, that's one of the predominant ones we have seen, as you might be well aware or expect. There are others that fall in the same way into a management type category.

"Joe Smultz has my sister-in-law, and he treats her -- on staff, and he treats her better than he treats

in these areas. And then I wanted to give you the opportunity to give us those comments, while certainly most of the people who are here today, are here yet --

MS. ELLIS: I think we'd like to. Can we take a brief break?

MR. EISENHUT: Certainly. Be happy to. Take a five minute break.

(Whereupon there was a recess.).

MS. ELLIS: Thank you. I appreciate the opportunity of presenting this information to you. There are numerous things, obviously, that we would like to say.

And one of the problems that we're having is that, if you look back, historically, at Comanche Peak, which has been mentioned, we have the -- with all the to-do, since we have been at it for many, many years now.

One of the things that really has struck us is that, in things like the Robin report, and the testimony of the CAT hearings, and the Mac report, which was just supplied to everyone recently, you will notice that one of the things that always shows up is that the utility always has a good attitude that comes through very strongly. There is always a good attitude.

The problem is not there apparently. It is with implementation. I wanted to mention that as sort of a

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word of caution. If you will go to the NRC people who are here. It sounds good, but follow-through is not always there.

Another thing I wanted to point out, and those of you have heard this before, please bear with me, because I think there are a few here who should hear this.

The applicants made an agreement, which we all went along with. And CASE, frankly, worked our rear ends off to try to meet our obligations under it, back in 1983, December 28 of '83, the board's order on the design's issues.

Part of the applicant's plan which they came up with, which they chose the system, they chose the way to do it. They chose everything about the plan. It was approved by the board and the NRC staff, and CASE went along with it.

This was a plan which was to decide once and for all the design adequacy of the whole plant. That system fell through. The utility is now in worse shape than they were before.

The motions for summary disposition, which we worked very hard to answer, we have heard nothing from the staff on those motions for summary disposition, except during meetings. We have not been officially answered in writing. That's not part of the hearings

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process.

The utility still has many that they have not responded to. And they have answered none of our motions for summary disposition which we filed. We are, after all, in a legal process.

We went into this legal process with great misgivings, I might add. Because we felt that, even though we felt the system was very imperfect, and that it didn't work very well, we felt that our efforts would be worthwhile, even if we could make the plant safer. We think we have already done that.

However, as we have looked at things, we now found that the problems are much, much more severe than we ever even imagined.

And we realize that as we say that, this is with the full knowledge of what we have seen is only the tip of a very large iceberg. For instance, on the pipe support issues, which were brought up in our hearings by two engineers who worked at the plant, Jack Doyle and Mark Walsh.

These are issues today, not because they were identified by the NRC, not because they were identified by the utility, but because of our witnesses and their testimony.

The cable tray supports would not be an issue now,

had it not been that Mark Walsh decided to look at those cable tray supports as part of CYGNA review.

When he looked at them, we found that those also had severe problems those were pursued subsequently by CYGNA. When they looked closer at the things they found, sure enough, there were more problems there than they had realized before.

One of the things that historically has also bothered us that is that we noticed here, for instance, that Mr. Beck said that minutes of the meetings would be open for audit and inspection. He was careful to say to the staff, not to the intervenor. This is typical, unfortunately, of the utilities attitude in the past.

Many times we have been put in the position where we cannot work with the utility because the utility simply will not admit mistakes. They will not admit that these problems were brought up by our people. They will not admit they overlooked them.

And if they don't admit the mistakes, certainly they cannot be expected to adequately correct them. They have got to make that admission up front before they can really proceed adequately to do anything about them.

Another thing is that, historically, with the staff, the staff has the attitude that everything is

fixable. Now this is something that may be and it may not be.

The licensing board, on the other hand, is charged with deciding whether or not this plant is to be licensed. I think that's a big difference, and it's one that we are not willing to turn over entirely to the staff.

I want to be very up font with you about that. We are in the hearings process. We do plan to protect our rights every way we can. Now what you're doing here today I think is a very important part of the whole process, and I certainly would encourage you to continue to have meetings like this.

I do think that there needs to be some mechanism set up during meetings of this sort so that, rather than being able to say a few words at the end, as we are now, we will be able to ask questions during the meeting, along -- I don't mean a full discussion. I mean just merely clarifying questions.

As things are now, we are left with no alternative to go to the licensing board and ask for formal discovery on many of these things. This takes longer for everybody. It would be such simpler to be able to ask and answer some questions along.

It would help tremendously in the process, and I

would urge that the utility listen to that and take heed. As I say, you left us no alternative many times.

One of the things, too, is that, in listening today, I'm a little concerned about the lack of interplay with past identified deficiencies, the samples that they will be using and so on. There are some problems there. I realize that this is a very difficult area. But at the same time I'm concerned that, otherwise, when we come to hearings --

Now, Mr. Counsil, of course you are new. I don't know you well. You haven't been on the board for a long time, and I'm sure I certainly don't want to impinge your motives or your motivations.

At the same time, I can only, by the history that I know this utility and these applicants, and I'm very concerned that at some point in time we're going to go into hearings and find ourselves in the same situation, especially on the design issues, which are so complicated and detailed anyway, that we will find ourselves in the same situation where we go into hearings, and you're hit with the same situation that CYGNA was hit with, where they came to hearings, thought they had all their ducks in a row, but found that all of a sudden there are more problems there than what tney had thought.

They had to do back to the drawing board, basically, and sort over on some of these things.

That's why it's so important that we be involved in this process, and that the utility open up the process to us through discovery, before all of this happens, before a lot of these things get out of hand, and before the same things happen again.

I think that's basically the main things that I wanted to hit on right now. And I anticipate that I probably will have some more comments that I would like to make at the end of the meeting tomorrow on the design issues, because that's something that I personally have been very involved with, in the design issues.

We'd like to take a few minutes right now and have Miss Garde, who is representing us, as you know, as the legal assistant to Tony Royce, and and the other part of the hearings. And she has just a few comments she would like to make, if that's all right.

MR. EISENHUT: Certainly. Go ahead.

MS. ELLIS: Thank you.

MS. GARDE: I have a number of specific comments on some of the things that I heard today. As I have stated in the other meetings that we have had in the last couple months, we'll reserve our comments and do them in a written form after the program plans are submitted,

apparently, at the end of June, so you will have a much more detailed look at our opinions and concerns about a number of things.

My first comment deals from this morning's presentation with the QA/QC project personnel. It's of great concern to me that these individuals, three of them, are not TUGCO employees. We have a DUKE person on loan. We have two Daniels people on loan. I don't know what -- the Daniels gentleman, and I have had only limited contacts with the Callaway project.

However, I have had a lot of experience with Mr. Wells in his background at Cadoba. And I want to say on the record that, and I'm sure the utility is aware of this, that I'm extremely concerned about Mr. Wells being placed in this particular position, because of an experience at Catoba, in which he did not perceive or recognize or resolve a problem dealing with harrassment and intimidation of QC inspectors.

That situation has recently, within the last several days, resulted in DUKE power companies being levied a -- or a proposed 64,000 dollar fine.

And although there may be some dispute about Mr. Wells' involvement in that, the fact tnat there is harrassment and intimidation. It was QC inspectors, and it deals with the exact same problem that nas been

plaguing Comanche Peak. Is a very, very great concern to me.

Second of all, on the SAFE team, I have had experience with the consulting firm, limited experience with the consulting firm that is running the same team projects. And I would have to say on the plus side that never in any of the plants that this SAFE team has been at, have I ever received a complaint that an individual's confidentiality was breached under this particular SAFE team. That doesn't apply to SAFE team or quality plus programs across the country.

I am concerned, however, that since each utility company has their own arrangement with a consulting firm, that this SAFE team avoid some of the problems that we have experienced recently at Wolf Creek. And I'm sure that's why the wrongdoing issues were discussed in such detail today.

The things that I heard in the discussion on the SAFE team that were the biggest concern to me was, first of all, that wrongdoing issues be understood by the SAFE team, that the members or the personnel that are on the SAFE team, the investigators, the interviewers, and the management, have an adequate understanding of what the NLC expects to be referred to the NRC. And I don't think that's going to happen in a vacuum.

I think the NLC bears some responsibility there, for briefing those individuals, whether it's OI, whether it's Mr. Noonan. But laying down a framework which says few have an allegation of falsification of records. That has got to go to the NRC.

I don't think you can do this thing in hindsight, at the end of the road. 800 allegations, 1100 allegations, figure out that the process by which these things were done was flawed.

Second of all, and equally in line with that, is that there are issues which are relevant to the hearings that are in the hearings legitimately. Not new contentions in which the utility company has an ongoing obligation to notify the parties and the board when that information comes forward.

I think some months ago we saw the board notify of an allegation of falsification of records. Utility company has a certain obligation to keep both intervenors and the board notified. Because those things are in the SAFE team track, does not mean tnat that obligation is removed. And I think it's extremely important that tnat be worked out at this point in time, rather than in retrospect.

Finally, I was a little concerned, Mr. Counsil, on hearing your characterization after a lot of the

management concerns, as being complaints about pay complaints, about management. I'm sure that a lot of those complaints are in there. GAP receives a lot of complaints in that same vein as part of the process nature of the business.

However, I think the way you characterized it was a little bit much of a red herring, in some cases. And I'll say frankly very few -- some of the individuals who have gone to the SAFE team had also gone to GAP.

In most cases, those have already been passed on to the NRC. But I know firsthand that there are concerns which are serious which do involve wrongdoing issues, which do involve documentation deficiencies and hardware deficiencies, which have been given over to the SAFE team. That those have not yet been answered.

I think the jury is still out, and I'm not making that as a criticism. I think it's very important that it not be characterized as a red herring, that this is all pay complaints, because that's certainly not true.

My third point was also a concern from this morning or early this afternoon, dealing with a consultant's review of the QA/QC program.

Maybe, Mr. Hansel, I misunderstood what you said, and if so, I hope that you would correct it. But the way that you present the consultant's status in regards

to regulatory requirements left a very, very large loophole.

The statement that I wrote down from what you had said, was that the consultant's review is not being subjected to the regulatory requirements, i.e., not written up, not subjected to QA/QC review.

That was a real red flag to me, and I'm real concerned that that be clarified, because if in fact you have consultants out there, they're essentially eyeballing a project, eyeballing a particular system, and not submitting their findings into the regular project loop. Then you have got an entire bulk of people that are out there identifying problems, not writing them up, and they are not being factored into the process.

And I won't proceed on that point because it seems so outrageous, frankly, that I think it may have been either misstated or I misunderstood it. But if that's true, then that's a big concern.

Fourth, there was some discussions, and I just wanted to echo what Mr. Calvo said, that I think periodic reports are critical. Most of the projects that we have been involved in that have undergone major reviews or reinspections such as this have included some kind of monthly briefings.

I have found that those are most productive, that a monthly meeting format works very well, and they should obviously not be this size. It gives everybody a forum. They know the first Wednesday of every month there's a meeting. Things can be bumped to agenda, and those to me work the best. They work better than written reports, because written reports only raise questions.

You don't want to spend a lot of time writing them. And I would hope that something would come forward.

My fifth point, again, went to Mr. Hansel. Some of the things that you said, I'm very concerned that you're relying on your Braewood work. Because I have just done a little stint of Braewood work myself, and I'm sure, as you're aware, that ERC did not find a lot of problems. Then the NRC did find a lot of problems.

The reinspection program was stopped. There's pending enforcement action. And now the Braewood program is again essentially on track. But I think there was some programmatic deficiencies at Braewood which I don't want you to repeat here. And I'm concerned that that's going to happen.

And I'm also concerned that if you say it's not going to happen, that you explain why, you know, the

same type of program is acceptable without making some kind of changes.

Again, and my last point, deals with a discussion on the attribute checklist and the procedures. I think the most critically important document that apparently does not yet exist is the attribute check list that's going to be used in the reinspection. Those attribute check lists must be accurate. They must be developed to each component.

They cannot be essentially a generic electrical cable attribute checklist. I believe that the strength of the Midland construction completion program laid in the fact that the attribute check lists were ultimately approved by the NRC, and by a group of individuals from the NRC that made sure there was no loopholes.

So that there was a set of a check list, which were publicly documented. And I'm sure that, John, if you don't have a copy, you could easily get a copy.

But those check lists were very, very good, and there were not eight or ten of them. We're talking about 80. And I think at the end there was over 130 of those check lists.

They were a very quality product, and they did not leave room for questions. You knew when something was going to go through there, if it came through that

program, even I was satisfied with it. And I think that that's the kind of thing you need to have.

And equally with the procedures, the inspection procedures used in the reinspection program, have to be unquestionable if the integrity of this reinspection effort is going to withstand scrutiny on the board, to the public, and to ourselves.

And I think that the details of those procedures just cannot be simplified. They have got to be even better than they were in the beginning, and deal with all the little problems that left room for doubt. Left room for inspector judgment, that may have been flawed or raises -- now raises the questions.

The only other comment, and my last one, is that you said you had reviewed inspection reports going back two to three years, and you weren't going to go back any further.

And, again, I'm not sure if I completely understood that that was the scope of what you were going to look at from your external sources. I think if that's true, that would be a very big mistake, because the genesis -- almost all the problems now on the table you can trace back to '78, '79, '77. And many of them were in NRC documents, and certainly should have been in some of your own internal audits.

And I think you must go back to the beginning of construction, if you're going to find the real root cause, because you have got to address -- for instance, in the Mac report, I didn't have predictions of certain failures.

Now you're finding that the predictions came true, and all the way along you had, as Mr. Royceman characterized, can flares, and the cole mine workers saying, "This is happening, this is happening," and no one caught that. I mean that's got to be explained.

And until you go back to the beginning of construction and start looking at all those audits, you can't possibly deal with the root cause. Did I give a lecture this time?

Okay. That's all. Thank you.

MR. EISENHUT: Thank you. I don't want to try to argue about the issues now. Let me make one point on one thing we do intend, that there will be some forum for a flow of information back and forth. There may well be monthly reports. And I think there's actually going to be a lot more frequent than monthly meetings. In fact, I told the staff coming into this --

MR. CALVO: Don't repeat it. Don't put it in the record.

MR. EISENHUT: That there is going to be a lot more

meetings, and they ought to plan that, on many of these issues, layout to be either having meetings with the utility, meetings here, comments, various parties, there ought to be considerable time spent in the plant. And there's going to be quite a bit of that.

Now that's got pluses and minuses. It is going to be a very intense effort, and it is going to be. There are going to be status reports. There are going to be meetings, which are going to be a lot more frequently than monthly. You're going to have to obviously pick and choose which one you cover.

We have taken the part here that we have tried to notice the meetings to the extent practical. We're going to have we try to notice them with ample time to the extent practical. We're also going to be keeping a transcript of meetings.

Obviously, if you're going through a detailed discussing, wiring diagrams, they just don't lend themselves to it. Obviously the staff is going to be spending considerable time in the plant doing inspections.

I would expect there are going to be considerable meetings going on discussions almost weekly. So I expect there will be considerable dialogue. Let's see.

Are there any other comments that the staff, the

utility, anyone else wants to make before we break up today? I do understand we will be going through the design issues.

Vince tells me you want to start at 8:30?

MR. NOONAN: I think we would like to start about eight o'clock, if that's okay with Mrs. Ellis and Bill.

MR. EISENHUT: I understand you estimated the meeting will last four hours. With these guys, maybe eight hours. That's why we suggested eight o'clock.

MR. COUNSIL: I don't have a problem with eight o'clock. I have a problem with 7.

MR. EISENHUT: Let's agree, at 8 o'clock tomorrow morning. I appreciate everyone sitting through the meeting today. The staff -- Mrs. Ellis?

MS. ELLIS: Yes. I just wanted to be sure, when you said you try to notice the meetings as much as possible, we'll still be getting phone calls.

MR. EISENHUT: I'm sorry. What I mean, a phone call or in writing. And when -- I tried to correct myself. We'll try to notice them as far in advance as possible. You will be notified of all the meetings we have, other than when we're in the plant doing an inspection, those kinds of things.

All right. Thank you very much. It's been a long day. Thanks an awful lot.