Tuesday Afternoon Session

June 11, 1985

4:55 o'clock p.m.

- - - - -

(Present: Messrs. Burns, Rossi, Bell, Beard, Lanning, Shafer, Jackiw, Kosloff, O'Connor, Rowles, Wood, Myers and Wideman.)

MR. MYERS: Perhaps before we start, the sequence of events you had generated was put together in a manner of about an hour and a half yesterday at the request of Al DeAgazio to get electronically word processed through our system to get down there at a certain time frame.

We apologize for the brevity. We had to yank Stan out of several other things at the time. It's obviously far from a detailed sequence of events. We are working on one, but we haven't even connected with our post-operator review as well as we should have, so we apologize for that. But we made it and got it sent down, but it leaves a lot to be desired.

MR. ROSSI: So we will eventually get an updated one that will include a lot of the things that were described to us in the earlier meetings?

MR. MYERS: Absolutely. I think we are shooting right now to get that for our on on-site nuclear review meeting in polished form. So we should have better ones available almost on a daily basis. Everytime we get a new one out, we will have it to you.

MR. BEARD: Can you be sure to mark those with at least a date on them.

MR. MYERS: I think date and time we are going to end up with.

MR. BEARD: Every fire drill I have been on, you need date and time.

Are you going to give some opening remarks about change of section?

MR. ROSSI: We are now going to talk about the status of the equipment we had problems with during the event and try to tell you I guess or come to some agreement as to what we need to do in order to permit you to start trouble-shooting the equipment and ultimately fixing it and getting it back into service. And we want to discuss that and explore what the proper course of action to do that is.

Now, as we understand it right now, you

have agreed with the Region to not touch any of a certain set of equipment, the view being to keep that equipment in its current status until we can decide how to on a systematic way go in and find out exactly what was wrong with it and so that we don't lose any of the information that's currently there.

I guess what we would like to hear from you probably tomorrow is the status of that equipment, the list of the equipment which you have already -- you have already asked him for a list of the equipment.

MR. JACKIW: Yes, we have.

MR. ROSSI: And the Region has already asked for a description of what was done with that equipment up until the time that there was essentially this freeze put on it. You have asked for that.

MR. JACKIW: That's right.

MR. ROSSI: And I gather that list has not been provided to the Region as yet?

MR. WOOD: That's correct. And what we would like to talk about, as a precautionary measure, we put essentially a hold on all the work

that was remotely associated with the transient, and we would like to review that list that we have had in abeyance at this time and discuss with you whether that is indeed the right set of equipment to hold in abeyance right now. And if there is some direct feedback that we can get, maybe we can get some work released to the people in the station.

So I guess that was one of the reasons we asked to have this conversation today was to tell you which equipment we very specifically have on hold.

MR. BEARD: I think that we heard I guess an hour or so ago this was a concern and we have had some brief internal discussions about it, and I think Ernie has got some thoughts as to how we might approach this in terms of best allowing you to take loose any or get a hold of any equipment you want to work on, and I think he's got some points in mind that maybe give us some guidance on how to approach the matter.

MR. ROSSI: First of all, I think we need to understand why the equipment was -- how it was related to the event and why it was put on the list to be frozen, and presumably that's associated with

how it was involved in the event, what you have done with it up till now, what you plan to do with it next, and how you propose to make sure that whatever you do next is done in a carefully controlled manner so that we get a record of any problems that are found and what caused those problems.

MR. BEARD: I think documentation of the status of the thing and maybe even in terms of photographs where it might be appropriate or other techniques that you might choose to use to make sure that for equipment that the team could find call it releasable, that we really don't lose the overall intent, which would be to lose some information related to understanding the transient.

MR. ROSSI: So where it's just adjustments are going to be made, we need the record of the as-found status of the equipment and then, you know, what was adjusted and where you find an actual equipment malfunction or something broken or something that isn't working properly, a description of what you find, and where applicable we probably ought to have a photograph of it if it's an actual piece of equipment that is broken or

severed or whatever.

Now, Wayne, you may want to add to this because you are clearly involved in this, also because you are going to be involved along with us in --

MR. BEARD: Before Wayne jumps in, let me inject another point we discussed earlier. If for example for a piece of equipment your intent would be to proceed into some mode of trouble-shooting to determine the cause in order that you could establish the appropriate corrective actions, we have heard some discussion about vendor representatives, technical experts who would either be here or would come. It would be very helpful when you put together this information that Ernie just described if you would indicate those activities that would be under the supervision of the, quote, expert, unquote. That would be very helpful.

MR. ROSSI: Now, Wayne, do you have any thoughts on guidance that we ought to give to them so that we are assured that you don't lose information as to problems that occurred and were involved in this event?

MR. SHAFER: Right.

MR. ROSSI: That's our bottom line in where we go next with the equipment is we don't want to lose any information in what you find and problems with the equipment that cause the event or contributed to making it more severe than it might have been if you hadn't had the problems.

MR. SHAFER: Any piece of equipment that you identify as failed, broken, something, misoperated, whatever, is to remain in your hands. In other words, it is not to go to the vendor's shop without -- and you may have to do this, but I think you have to sit down with the team and explain very carefully how that's going to be controlled such that it is retrievable.

By that, I'm saying for example, you know, if you wanted to take the governor off the main feedpump No. 1 and ship it out to GE, before that happens, I think that's where you are going --

MR. ROSSI: We need to talk about how we know its condition before it leaves here.

MR. BEARD: I think a big part of that is traceability. You know, we have had some incidents where either information was lost or the

traceability of the failed equipment was disrupted to the point where it was not real clear who had the exact one versus a similar one. So it's very important that at least traceability be maintained.

MR. SHAFER: Ernie, you may want to, concerning the vendor program, if in fact it does have to go to a vendor's site, dispatching someone --

MR. ROSSI: From the vendor branch? That's a good point, yeah.

MR. BEARD: I think there is another point too that is probably worth mentioning, and that is there is obviously an interface between this team that the executive director for operations established and normal responsibilities of the Region and the resident inspector.

As I understand it, the scope of this team is to determine basically what happened and why, which includes root causes to the extent we can find them.

Once the causes are determined, that would sort of be some definition of the interface with this group. The adequacy of the corrective actions to address those causes or those failures I think would probably fall in the jurisdiction of

the Region and the residents.

But we do see that the primary purpose is to have a trouble-shooting procedure or approach adequately guided with technical assistance from the vendors where it's appropriate such that the root cause can in fact be determined and not lost.

MR. WOOD: Do we want to establish a very formal procedure on laying out this documentation, action plans and control and review and approval by the team? Do we --

MR. BEARD: My personal feeling is it does not have to have a great deal of formality, but I think it needs to be in writing. For example, I would envision there would be some typed list of the equipment that you basically quarantined, if I can use that term. And besides that or key to it on the next page would be the reason you chose to quarantine that piece of equipment, et cetera, et cetera, et cetera, in some type form that the team can look at it in order to make some reasonable judgment as to whether it could be and should be released at this time.

But other than typing so it could be reproduced and is legible, I don't see a great deal

of formality myself.

MR. ROSSI: Wayne, does that sound satisfactory?

MR. SHAFER: I think I agree. Just so it's clearly understood nothing slips up. I would not like to see suddenly a piece of equipment disappear. So the onus will be on you as to how formal you want to set it up for your staff.

MR. ROSSI: And I think anything that goes off-site to a vendor, I believe we should tell our vendor inspection branch about it and they should have the option or we should have the option of advising them that perhaps they want to be there when it is looked at at the vendor shop.

MR. BELL: I'm sure you want similar controls as to what he's asking for, because I'm sure you don't want to lose the information either.

MR. WOOD: That's correct. And part of the problem we are having is trying to understand just what is all involved in this scope, because we have things that may have, for lack of a better word, broke during the transient.

For example, we had trouble getting the turbine on turning gear. Now, that seems a little

obvious to me that that doesn't belong in the framework of what we are talking about. And yet if I read the CAL, it was equipment that malfunctioned during the incident.

And while that is clearly on one side and the MSIVs are clearly on the other side, we have some other equipment that may not be so cut and dry as to what side of the fence they fall on. And so, you know, without some kind of an understanding or agreement, we may be holding up a lot more work than really is intended to be held up.

MR. BEARD: I think that, you know, the team would certainly not like to hold you up any more than is absolutely necessary. That's the first thing that ought to be made clear consistent with the objective of not losing any evidence.

However, I think that it needs to be done in a systematic way. By that I mean the process of deciding what could be released and what couldn't be. I think your example of the problem with the main turbine on the turning gear is probably the kind of thing if you give us the information that Ernie has outlined here, my personal assessment is that would probably get a very, very rapid release.

But I think the decision to make that release needs -- can only be made systematically if the information like he described is presented.

MR. WOOD: Okay.

MR. JACKIW: I think John is having a problem, should he list everything that has happened, and we make the decision if it affected what was involved in the transient?

MR. BEARD: My personal opinion is I understand you folks have a certain list of equipment that you have chosen to quarantine.

MR. WOOD: That's right. But the turning gear would not be on that list.

MR. JACKIW: That's correct.

MR. SHAFER: Maybe we could even get this changed so that what the CAL would be saying was that the equipment that malfunctioned, okay, and that is the equipment that relates to those systems that were involved -- no.

MR. ROSSI: We better be a little careful because we can turn up with finding a piece of equipment that we think now isn't related but three days from now we find out it it is related.

MR. BEARD: I think that's the whole

purpose of the freeze. The decision of what's related and what's not related, it's intended the team would make that assessment and be responsible for that decision. And in other words, I would envision that as a responsible utility, you folks would come up with a list of all equipment that had malfunctioned, put it under quarantine and go through some process like at least for this event like we just described in order to request a release.

Because of the question of who makes a decision of what's related to the event and what's not and this, that and the other, it has to be in a very systematic and careful way.

MR. MYERS: Probably what we would not have done or would certainly do to a different level of detail, like the turning gear to Aux Feed pump is the area which you said in writing describe the next actions that are going to take place and how the capturing of everything will be guaranteed in the case of the turning gear, our maintenance organization standard trouble-shooting activity we would probably consider adequate. Certainly not by a long shot with the Aux Feed pumps.

MR. BEARD: We are not arguing that point at all.

MR. ROSSI: You know, one other thing we didn't talk about is on this list, another category ought to be their reasons why something is so unrelated to the event that perhaps it doesn't need to be on the list. If we have your reasons as to why something is related to such a small extent to the event, we don't have to have these controls on it, then we can look at that and deal with that. The turning gear may come under that. Does that sound reasonable to you people from the Region?

MR. SHAFER: Yes.

MR. ROSSI: It's a little bit of a compromise. There must be a list of stuff you have quarantined, so to speak, that you are prepared to justify as not sufficiently related to the event that we need to maintain tight control over it and we could perhaps dispense with that list. Wayne?

MR. LANNING: I'm just wondering, don't you have some sort of formal maintenance work order request you are going to fill out on each piece of this equipment?

MR. WOOD: Very definitely.

MR. ROSSI: Does that include the turning gear?

MR. WOOD: Yes.

MR. LANNING: Everything in this plant I suppose is controlled by this kind of work order.

MR. WOOD: There is a work request which is transformed into a maintenance work order, and there is no activities done out there without a maintenance work order.

MR. O'CONNOR: Other than minor packing adjustments.

MR. LANNING: Is it practical this may be one way in looking at the type of activities that is going to take place on this equipment?

MR. WOOD: Certainly.

MR. SHAFER: How many maintenance work requests are we talking about?

MR. O'CONNOR: Right now? You mean just for this event? I'm not sure how many are generated right now. On a guess, just on the systems that we have listed so far that we have quarantined, there is probably 15 or 20.

But all we have done is just say nobody can touch the feedpumps; okay? When we actually

get to the feedpump, the guy working on the speed control or the governor will have one work order. If somebody else is on the oil system, he will have another work order.

So this number of work orders isn't necessarily the key to it. It's just, you know, there may end up being fifteen on the main feedpump alone because each particular shop will have his own work order.

I & C has one to do one specific item and that's all they are allowed to do in the scope of their work. In other words, if he gets into the speed control circuit with permission to trouble-shoot the speed pick-ups and he finds something wrong with some other part of it, the high speed stop, he's not allowed to work on that. Another work order is generated to give permission for that. So we do carefully track the work that's done.

MR. ROSSI: That will help in tracing through what they find and what they did to correct it too.

MR. O'CONNOR: We have to be careful on the documentation on the back side of the work

request where the individual worker documents his time and what was actually done. We probably have to be very careful with the cognizant engineers to make sure that is very specific and not, you know, found fuse blown, replaced fuse, back to normal.

MR. ROSSI: Made several adjustments. That's what we are worried about.

MR. BEARD: System now works.

MR. KOSLOFF: It might be of value to consider the possibility of using their computerized program of listing and actually printing out maintenance work orders. That might be helpful in this listing process. I don't know.

MR. BEARD: I think all of the discussion I have heard in the last five minutes or so is more of suggestions of possible ways to facilitate providing the types of information that Ernie suggested earlier. And I'm not sure we ought to go too deep into telling you how to do something versus telling you what we think the team would need.

MR. ROSSI: We want to make sure that when pieces of equipment that are related to this event are worked on or adjusted, that there is a

record kept of the as-found condition so that we can then say we know what the root cause of the problem was. So it's more of a -- you are going to have to concentrate more on having records of the as-found condition than perhaps you would have in the past.

MR. O'CONNOR: You are not really saying we cannot work on it right now?

MR. ROSSI: No. We are saying we want to see how you are going to do that before you work on it.

MR. WOOD: And I don't think we have any problem in handling those systems or those components in that fashion. What we have had difficulty with is understanding this item of putting things in abeyance and just how far that went.

And I think the discussion here actually is telling us that it went farther than perhaps we initially implied. Things like the turning gear, I'm not quite sure we would have allowed maintenance activities to proceed on that.

MR. O'CONNOR: See, it's already fixed. I had to fix that to get a vacuum back.

MR. BEARD: My understanding of the intent of this thing is the team would make the decision of what's related and what's not related in order to assure that there is some independent systematic assessment.

MR. ROSSI: We look at your reasoning of why it is not related.

MR. BEARD: But I think in the situation, the example you brought up, the turning gear, that would be a very rapid turn-around item. But I think the intent should be the way it is written on the paper and that is anything that malfunctioned immediately before, during or immediately after the transient is the kind of thing you want on the at least preliminary quarantine list.

MR. WOOD: I think our quarantine list will have to grow after we leave this meeting and we will get that word back to the station. I don't feel uncomfortable that what we may have done in this interim is anything that would have significant impact, and we can capture what was done on the MWO process. But perhaps the list of activities that transpired until the thing was put into abeyance has increased.

MR. MYERS: Why don't you just run down -- I think you are making a little more out of the turning gear than needs --

MR. BEARD: One other point before you get into the actual list here, we recently had another experience with another B & W designed plant where some equipment was gone into to check something after a failure of a similar piece of equipment just to see if it was all right, and in that situation through the maintenance procedures, trained and experienced people went in and made a measurement which when the manufacturers' representatives arrived on the site the next day they were told it was the wrong way to do things.

And the utility I don't believe was at fault in this, but the manufacturer's representative brought additional expertise and additional knowledge to the scene and said that's not the way it ought to be done, but the point is that because he found things out of adjustment as he perceived it by his measurement technique, he then made corrective adjustments and there was a tremendous amount of information lost in a very important safety related system.

That was not disastrous, but it would have been extremely helpful to know how this piece of equipment worked. So the reason for relating that incident to you, it's so recent that when you plan on doing trouble-shooting activities on key items and are anticipating involving the vendor's representatives, you may want to consider at what point you bring the vendor in.

MR. ROSSI: If you are considering bringing the vendor in, you probably ought to have him here before you touch the equipment because you may lose information because he feels he knows how to make measurements and adjustments and determine the as-found condition and that if your people do it before he gets here, they are not going to accept the validity of what he finds, which is I think the case we have.

MR. BEARD: And recognize, we are thinking along the line of the utility is doing an outstanding job; there is no doubt in my mind about that. But the individual who comes from the vendor shop does represent a technical expert in a particular item and so there is that benefit.

MR. WOOD: We have no problem with that

at all. The list -- I didn't mean to scare anyone here. There are eleven items that we have put on to this list.

Very simply, the main feedpumps, the SFRCS system, the Aux Feed pumps, the Main Steam Isolation Valves, SP7A, which is the Startup Feedpump valve.

One that we have not talked about, the source range NIs, I don't believe any of your discussions would have covered the NIs [illegible] it, Bill?

MR. O'CONNOR: We had one inoperable prior to the trip and immediately after the trip, one of them was not functioning. It started up when I & C went into the cabinet, but it was an anomaly we couldn't explain.

MR. BELL: So you had no source range indication?

MR. O'CONNOR: Not for several minutes.

MR. BEARD: You have two source range channels at this plant?

MR. O'CONNOR: One had been declared inoperable and they were working on it before the trip.

MR. BEARD: And the second one happened post-trip?

MR. O'CONNOR: Yes.

MR. BEARD: Are you intending to include that in your updated sequence of events?

MR. MYERS: Yes.

MR. WOOD: The next one, the turbine by-pass valve, we have one turbine by-pass valve that broke the yoke off. Now, again, that has not been discussed in the sequence of events, but that was a failure that we will need to correct.

MR. BEARD: When did that fail?

MR. O'CONNOR: We don't know whether it failed on the trip or when we reestablished turbine by-pass cooling several hours later. It's hard to tell. You know, it could have failed initially on the trip when the valves all went wide open, or it could have occurred when we reestablished cooling later.

Right now we don't know when it occurred. Hopefully we can get some sequence of events to figure it out, but right now since we have essentially roped it off and no one has been near it, we haven't been able to track it down.

MR. WOOD: The next one was the PORV, Power Operated Relief Valve. Main steam safety valves, I don't think we brought that in the sequence. We had one main steam safety valve that didn't reseat until it was 900 pounds, and we would like to have them reseat before we get to 960.

MR. BEARD: You had a valve that misbehaved in the same way the last week or so, didn't you, on a different event?

MR. O'CONNOR: We seem to always have one blow down too far at some time or another.

MR. BEARD: Is this the same one that misbehaved? I can't tell. There is 18 blowing and you don't know which one stayed open.

MR. WOOD: We can tell them -- out of nine of them, we can tell it's in a group of nine, but we can't tell which of the group of nine.

MR. O'CONNOR: We know which steamline it was on, but to isolate which particular valve did it, it's virtually impossible.

MR. WOOD: And it's a situation where you lift them once and they reseat, you lift them again, they reseat, maybe the third time, maybe the forth time they lift, they don't necessarily reseat at

the same pressure that they did the first two times.

MR. BELL: You are not talking about consecutive lifting of the valve. You are talking about maybe this week it works okay, next week it works okay, and the third week --

MR. WOOD: I'm saying during the transient, you may lift the set of safety valves four different times in a span of twenty minutes or so.

MR. O'CONNOR: When the MSIVs go shut, that's your pressure control. So the 1050 reliefs lift the most. But the hotter they get, they seem to lift earlier and earlier and earlier.

MR. BELL: When you establish feedback steam generator, did the safties lift again?

MR. O'CONNOR: No.

MR. WOOD: We then have valves AF-599 and 608, which they are actually part of the Aux Feed water system, but we bring those as a specific line item here. And then we have the SBDS system which had some problems in transmission.

MR. BEARD: Would you repeat that.

MR. O'CONNOR: The SPDS.

MR. BEARD: Safety Parameter Display

System.

MR. O'CONNOR: Safety Parameter Display System. And that is the list of equipment that had malfunctioned or anomalies associated with them that we felt were even potentially involved with the flow of events.

MR. BEARD: I could see that, you know, without having reviewed it, that some of the items on that list could have the potential for very rapid release.

MR. MYERS: What I wrote down was essentially what we need to do is, especially in those areas where we could proceed rapidly would be, like you said, identify the equipment and its possible connection to the event, why we could consider it -- or why we did consider it frozen, and then in the area, some nonrelated areas, try to justify some complete release, you know, early on, and in those cases where we don't, then go into exactly what actions were taken during shutdown, the documentation to date, and then develop in each case the plans for future activity and the procedural control of as-found conditions and any changes thereto.

I think we will probably have to use procedural control. I don't really know any other mechanism that we can could -- administrative control mechanism that we could use that would provide us the -- more of the guarantee that we get all that stuff back.

MR. ROSSI: That you get the information on the as-found condition of the equipment?

MR. MYERS: Yeah.

MR. BEARD: I think any time you start talking about a fact finding trip like this and a freeze order on plant equipment, any plant trip you will talk about, there will be a few pieces of system that happen to fail coincidental that aren't related to the transient. I think it's unfortunate we have to include those in the umbrella, but I don't see any way around it myself, and I'm sure we will try to work and get you as quick a release as possible.

MR. MYERS: You will be involved in the operator interviews. Probably by that time, by the completion of those, you will have essentially Jacque Lingenfelter's, the technical section's evaluation of the sequence as they knew it, the

operational aspect of the sequence as we knew it, and the operators' interface. Probably by tomorrow, midtomorrow, we could come in with a couple of the areas we thought would not be related and you would have a pretty good drawing of the line down what you are interested in and what you are not interested in.

MR. ROSSI: I think that's pretty much the way we saw things when we have discussed them amongst ourselves.

MR. MYERS: We would bring these in with a level of documentation just to try to justify those.

MR. SHAFER: May I ask, is the list of work activities that was conducted prior to the request, the hold, is that list being made up?

MR. WOOD: Yes, it is.

MR. BEARD: Do you have any idea what sort of time frame we are looking at for receiving that list?

MR. WOOD: Right now I don't have a good handle for it. I talked to the maintenance engineer earlier, and he indicated several items were done. I don't know that the entire scope is

wrapped up. We can find out very early tomorrow when that would be complete.

MR. SHAFER: One thing that would not show up on there would be in fact that work was accomplished on the two valves 599 and 608 in that they were manually opened during or right after the incident.

MR. WOOD: That's correct.

MR. BEARD: I know that would be part of the sequence of events.

MR. SHAFER: Absolutely. But in recognizing I think we qualified that very carefully by saying, and you did this morning, that with regards to plant safety the decision is made they have to do something with that equipment, then they should do so.

MR. WIDEMAN: I don't know they did any maintenance on it. All they did was take it off the back seat so the valve would open.

MR. MYERS: What JT is saying, we will show that in a sequence of events manually opening.

MR. BELL: But we would need to know if they went into the two valves and found the torque switches were set too low and couldn't work off the

closed seat, because the torque switches took the motor out of service. We would need to know that, I think.

MR. WIDEMAN: I would think that would be part of the evaluation. We identified it as a problem, and if we do an evaluation and determine, you know, that the switch settings were either too high or too low and they need to be adjusted, that would be the corrective action to prevent recurrence, which we would get your concurrence on and then do the activity.

MR. BEARD: Does that give you some resolution of the question you brought in of getting relief on this?

MR. WOOD: I think that gives us a good direction. I think it does put in abeyance more perhaps than we had anticipated originally, and I think there was some misunderstanding maybe on our part, like again to use the turbine turning gear, for instance, I think we have been working on that or would have worked on it. I don't know that we have actually done work, but it's my understanding that should be on the list.

MR. MYERS: I think there will be very

few items. By tomorrow when we are ready to take a crack at it, we will list any others that would have ever fallen into that category. I don't think there is any.

MR. JACKIW: John, I think you might consider maybe some of the maintenance procedures that when you actually get into some of the work on equipment that malfunctioned, maybe have some kind of a special order attached to the procedure for the maintenance procedure for the people and just make them aware that if they find any problem, the as-found condition, they need to follow some sort of control of documenting it.

MR. WOOD: I think we can put some hold witness points that will trigger that type of thing.

MR. BEARD: I think also from what I hear you might have some procedures for certain adjustments that are considered not safety related and not involved that usually you do in a less formal manner than a tech spec or safety related. What you might consider, because they were related to the event, treating them temporarily as with all the tender loving care you would as if it were say a tech spec or safety related item this one time.

But that's really up to you folks. I'm just throwing it out as a thought.

MR. ROSSI: I think that's probably all we can talk about right now. We are going to talk some more amongst ourselves now that we heard what you have to say so we will be better prepared to address this issue as we proceed along.

MR. WIDEMAN: I guess I have a question that's aside from this issue as far as like these meetings go. Maybe I missed it in the beginning. Are these transcripts going to be available to us?

MR. ROSSI: Yes.

MR. WIDEMAN: Okay. I was wondering whether or not -- I'm trying to write some of this stuff done -- should I bring a tape recorder.

MR. BEARD: Recognize also there is a turn around time in getting the transcript.

MR. ROSSI: Two days.

MR. BEARD: If you need something tonight or shorter than that turn around time, notes probably are appropriate.

MR. ROSSI: I'm taking some notes on things that I want to -- I mean, you know, you are going to have to take notes because the notes are

probably what you are going to mostly rely on, and you will go back on the transcript to make sure your notes are right or if there is a question on --

MR. MYERS: Steve had been given direction to take copious notes, and I think he's looking for --

MR. WIDEMAN: -- a way out.

MR. MYERS: A borderline condition.

MR. ROSSI: The nice thing in having the transcript, it's a way out from us taking copious notes.

MR. BEARD: Try to hit for the big stuff instead of all the details.

MR. ROSSI: It helps considerably.

(Thereupon, a recess was taken at 5:35 o'clock p.m.)

- - - - -

Page	Line	Correction or change and reason therefor
143	14	"to lose" should be "to not lose" (steno error)
162	15	Unclear. Word "them" should not be there. (steno error)
163	14	"feedback" should be "feed back to the" (steno error)
163	15	"safeties" instead of "safties" (steno error)
163	20	"SBDS" should be "SPDS" (steno error)
170	15	"done" should be "down" (steno error)

Page No. 1 DATE 6/24/85 SIGNATURE W. C. Rowe