NUCLEAR REGULATORY COMMISSION

ORIGINAL

COMMISSION MEETING

In the Matter of: BRIEFING ON NUCLEAR DATA LINK


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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

BRIEFING ON NUCLEAR DATA LINK

Room 1130,
1717 H Street, Northwest,
Washington. D.C.

Thursday, March 26, 1981.

The Commissioners met at 1:05 p.m. pursuant to notice, Joseph Hendrie, Chairman of the Commission, presiding.

Commissioners Present:

Joseph Hendrie, Chairman.
John Ahearne, Commissioner.
Victor Gilinsky, Commissioner.

Present for the NRC Staff:

W. Dircks
V. Stello
B. Grimes
E. Hanrahan
S. Bassett
L. Barry
M. Schlosser

Present for the Office of General Counsel:

C. Stoiber, Esq.,
Deputy General Counsel.

Present for the Office of the Secretary:

S. Chilk.

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# DISCLAIMER

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P R O C E E D I N G S

CHAIRMAN AHEARNE: May we come to order.

The Commission meets this morning for a briefing on the Nuclear Data Link. We have a handout, and I guess the best thing to do is to let the Staff go ahead and present the propositions they have in hand to the Commission.

Bill, do you want to go ahead, or Vic?

MR. DIRCKS: Well, I'll just mention something.

CHAIRMAN AHEARNE: All right.

MR. DIRCKS: The Nuclear Data Link is beginning to be one of those institutions, I guess, that will go on forever, just trying to get out of the proposal stage. We have been discussing it, I guess, in meetings since February 7th, 1980, May 15th, 1980, July 11th, 1980, plus we've had conversations with OMB, Congress and so on.

The proposal that is being made today is really dealing with how the contractual effort should go forward. What we are trying to do, I guess, is get a decision on that point, but I'm sure we are still grappling with the basic decision of whither the Nuclear Data Link.

Based on the guidance that we have gotten from the Commission in all these meetings, I think this is the proposal that we are left with. I'm sure we will go into the details more, but I have to stress that it's the package we have based on the guidance we got from the Commission thus far.

COMMISSIONER AHEARNE: What he's just told us is that if we don't like the package, we gave him lousy advice.

(Laughter.)

CHAIRMAN HENDRIE: I detected a certain element of that suggestion.

MR. DIRCKS: Vic, did you want to pursue any more thoughts along these lines, or --

MR. STELLO: Well, yeah, I would like the first slide up as background, fulfilling my promise to never discuss this without assuring that the proper background is kept in mind and what it is we are doing.

(Laughter.)

(Slide.)

I think we are at a point where we really need to decide if we are going to move forward and how to do that. This morning we will be talking about what seems like the best way to accomplish getting started on an NDL.

I remind you that what we are looking at is a system that's designed and patterned after what was agreed to in very early meetings on this subject. Nothing has changed. That's still the basic concept which we were after. The emphasis on what we are doing is to really understand and be informed. I think the exercises that we have continue to remind me emphatically of a need. The need is real and it is genuine. If these are our roles, this is what we are to fulfill, it's my

belief that to do it, and do it properly, we've got to have an NDL.

With that, Brian will summarize the contents of the paper. It's a way in which to reach a decision.

MR. GRIMES: Next slide, please.

(Slide.)

I'd like to first briefly review the data needs during an emergency, and emphasize that the principal users of the data during any accident are the licensee and the state.

However, there are other offsite users of information, including the vendors, NSAC in an assistance role, and the NRC.

The next slide illustrates the same point.

(Slide.)

COMMISSIONER AHEARNE: I was going to ask on your last set of three items, are those in some order of priority?

MR. GRIMES: No I think the next slide that's now on illustrates a better priority classification. Clearly the on-site licensee's data needs are the highest.

MR. STELLO: I think the order of priority in terms of the licensing should be first. Their needs are first. The state, in terms of the need to eventually decide on protective action, and their involvement is clearly there, they have a direct role, and if I were to put -- I would put the NRC in terms of our responsibilities, and then vendors and NSAC.

COMMISSIONER AHEARNE: Are those responsibilities in

order of priorities?

MR. STELLO: Yeah, I would accept those as what I would --

CHAIRMAN HENDRIE: It's less an order of priority than it is a hierachy, okay? You can't recommend protective actions if you don't know what's going on. In order to know what's going on, you have to monitor what's going on at the plant. Somewhere between knowing what's going on and saying we recommend you move people offsite, you're very likely to have suggestions to people at the plant to see if there are measures that could be taken maybe so you don't have to recommend protective action.

So I don't think you can make a priority and say, well, we'll only do the first two, because those are the most important. They come together and it's a hierarchy of actions which have a single collective priority. How about that? If the Staff accepts that answer, why --

COMMISSIONER AHEARNE: I think Vic understands what I was getting at.

MR. DIRCKS: I think it's that "advise" on plant strategy that I think is underlying a lot of the concerns about how much we might intrude on the management decisions being made by the people on the scene, and I think that underlies a lot of it. I think that's the point that Vic will try to make at every chance he can get, that he does not intend to second-guess

the responsible officials at the scene of the accident. We don't want to impose our decisions on them, because they are about the only ones who can know what's going on.

Is that right, Vic?

MR. STELLO: Yeah, I think the word that troubles people most is not "advise," it's what is direct, it's the management, it's the takeover. The sense I have is that an advisory role is not one that creates very much problem for anyone.

COMMISSIONER GILINSKY: Well, I think there's a difference between the NRC advising someone or a vendor advising someone or some consultant advising. We are the agency charged by law with overseeing safety. So it seems to me that there's kind of a thin law between advising and directing. It's certainly different from formally directing by order, but if you --

MR. STELLO: If you remember the first line, it's a dashed line. It's identified. It's considered to be unlikely that you ever get to that point. It's recognized that this agency, since it has that responsibility, if it really did feel that it was in a position where it had to direct, in the very unusual, unlikely situation, that's preserved as a possible role.

It's not visualized as an eventuality that would be derived from looking at information derived from a data link. It's more considered the likely outcome of what would happen after

you got onsite, if it were to happen.

We seem to have a great deal of difficulty and spend a lot of time talking about what I think is a very unusual circumstance.

But advice, I think, is one that would probably occur much often. I would suspect that it would be a two-way street. It would not just be something that we would simply tell someone over the phone in terms of advice. I think it would be a discussion. And in the exercises we have, they seem to take on very much that character even in the real incidents where we have actually fired up, it's a two-way conversation that has, as part of its characteristic, advice.

MR. GRIMES: I think part of the development and review of the emergency preparedness organizations of the licensee are to try to establish a strong enough response organization that indeed they can have an unintimidated discussion with NRC experts.

I think your point was that we might carry more weight, even asking questions than the vendor, and I think that's a point to be sensitive to. But we should develop through these exercises, particularly some kind of understanding that they are finally responsible, and they have to tell us they are rejecting our advice or taking an alternate course of action, unless we feel very, very strongly about it. They certainly are up there, they are on the scene, they have the

authority and responsibility to do that.

MR. STELLO: I think understanding, too, that advice, simply asking questions that might start with did you consider or did you look at, has the connotation of advice as fault. And at some point you get the issue of needing to even have information to know what's going on, which is just understanding.

COMMISSIONER GILINSKY: I don't want to suggest that I don't think we ought to be talking to them, or we've got the competence or these sorts of things. Obviously we will be carrying on a dialogue. I'm jumping the gun here a little bit, but sucking up part of the control room can alter that relationship, and I think that's the kind of thing I was concerned about.

I guess I've expressed this before.

MR. DIRCKS: Well, I think that goes back to the definition of what part you want the agency to play in these incidents or accidents. It would be easy to say that we have no role to play that would get us out of it completely, but I don't think anyone has suggested that we make such a clear statement. And if you're in it a little bit, you're in it, and I don't know how you can extricate yourself.

CHAIRMAN HENDRIE: At the present time, we have now run a number of drills and incident -- at least one incident I can remember, and we're there at the end of one, or at best, two

telephone lines, and the level of information inflow to the Response Center with the telephone system is bound to create a sense of modesty and humility on the part of the Op Center people.

You know, one sits there and you have a picture of what's going on, but you also have the very uneasy feeling that, by George, you could be wrong, because of the somewhat erratic nature of the single line communication, verbal communication.

And so if you talk to the plant manager and say, "Well, you know, have you got the steam-driven aux feed pumps going? How about the fire pumps? Could you blow down the secondary side and use fire pumps?", you're asking questions of someone who is there and presumably is in a much better position to know, and you're very aware of your own sort of lack of firm grasp of everything that's going on.

So, indeed, you ask in a tentative fashion. If he tells you, "That's a stupid idea," why, you know, you shrug and say, "Okay, you know best."

On the other hand, if you're sitting there at your console, you know, with the lights going on like a monstrous pinball machine, beep, beep, beep, beep, you know, and displays flashing, why, you may get a sense of power and say, "Boy, I really know, you can't talk to me that way."

So I think that's the kind of influence on our attitude that I think Vic was speaking to. It's a concern.

COMMISSIONER GILINSKY: But it's not all bad.

CHAIRMAN HENDRIE: But not necessarily all bad. Clearly we have to do better than the telephone. I haven't talked to anybody who doesn't believe that we need something better than the information transfer system composed of two human beings and the telephone link between them.

I find a good deal of discussion about whether it ought to end up at the current cost and sophistication of the equipment, but -- well. . .

MR. STELLO: I must point out that there is one flaw in that reasoning, if it's a flaw, that disturbs me, and that is something that suggests that we seem to function in such a way that the smarter we are, the worse we behave.

CHAIRMAN HENDRIE: No, I think the comment is just one on sort of basic to human nature.

MR. STELLO: I agree, but clearly the need for us to respond is such that there is a certain base of information that would put us in a position to speak to what is going on much more authoritatively, and to the extent we do anything, it's a great deal more wisdom than you are going to ever get pushed over those voice communication systems.

COMMISSIONER AHEARNE: Why don't you say, Vic, to speak to what is going on more intelligently?

MR. GRIMES: The problem is you don't want to confuse the roles. I think the agency has said that the licensee has the responsibility. If he thinks we're going to look over his

shoulder and see if signals are going to be called in from the sidelines, it's going to be confusing to him and confusing to us to see whether we should be sending in those signals. The danger of confusion arose that underlies a lot of this discussion.

CHAIRMAN HENDRIE: I think such perils as maybe lie in this area lie in the future. Present company has discussed this matter at such length that I think we are all quite sensitive to it, and if there is a pitfall here down the line for the NDL, why, it's several years off when a new crop of people who have not had the benefit of our searching analyses of this matter inherit it.

COMMISSIONER AHEARNE: Vic will still be there.

(Laughter.)

CHAIRMAN HENDRIE: Yes, Vic, you'll keep --

MR. GRIMES: The discussions may still be going on.

(Laughter.)

CHAIRMAN HENDRIE: Ask for a briefing every six months.

Onward.

MR. GRIMES: The purpose of the functional diagram is just to illustrate what we've been talking about in a graphical manner on the location of the data users.

(Slide.)

The next slide indicates what was covered fairly

thoroughly in NUREG 730, that there are several different ways of collecting and communicating information, and I won't go through them in detail, except to say that they all have the -- except the automatic methods -- have the disadvantage of tying up people and introducing the disadvantages of delays in transmittal and analysis of information, especially trend information, to people in the Operations Center or in the vendors or whoever else is using the data.

(Slide.)

The next slide just is a reminder of the number of variables that may be transmitted. We have not done this precisely, but we expect it to be a subset of Reg Guide 1.97 parameters and of this order.

(Slide.)

The next illustration indicates what the final system would consist of. The onsite data acquisition system is required by NUREG 0696 for the licensee's purposes, for the control room TSCN, EOF displays. And then the NDL terminal would be in addition. There is some discussion of whether a standard format could be specified for the data acquisition system, the avoidance of an NDL terminal.

There are also people who believe that to assure reliability, we should have a piece of hardware dedicated to making sure the format and transmission is proper onsite. I have seen various cost estimates for that. My understanding now

is that it could be done without -- under $10,000 per site for that terminal, although there have been estimates that have gone up to 80,000 earlier in the process.

The link then would be to Operations Center computer to provide control and storage and display of the information.

CHAIRMAN HENDRIE: Let's see. If the $10,000 terminal -- that would be for a standard system, wouldn't it?

MR. GRIMES: Yes.

CHAIRMAN HENDRIE: That is, in order to have a terminal of that minimal cost -- minimal in the sense of this sort of equipment -- you'd have to -- all of the sites would have to set up their data acquisition system so they were feeding the same sort of format and everything into the terminals. Then you would simply have a small unit whose function would be to try to protect the transmission on into headquarters from some garbled set of stuff from the data acquisition system.

MR. GRIMES: That's correct. You'd have to have a standard protocol specified. But you would not have to specify the hardware. Not hardware of the licensees would be the same, only the output be the same.

CHAIRMAN HENDRIE: But the preferred system at the moment -- I don't know if "preferred" is the right word -- but the system we seem to be talking mostly about, is one in which the reactor data acquisition system is not necessarily a standard. That is to say, it does not necessarily produce a

standard output to go to our terminal, but rather we have a rather more expensive terminal onsite, and we are able -- and we make the conversion between the data acquisition system and our standard protocol for transmission in our terminal onsite.

MR. GRIMES: I think some of the earlier cost estimates were based on that thinking. In 0696, we did say there would be a standard protocol that would be specified.

CHAIRMAN HENDRIE: I see. We have gone to the standard then.

COMMISSIONER AHEARNE: I think you are talking about this distinction between a stand alone and a standard.

CHAIRMAN HENDRIE: Have I got the things mixed up? Probably.

COMMISSIONER AHEARNE: I thought the standard that, for example, NASA and RTI was talking about is a wholeunit-based standard.

MR. GRIMES: There was a concept with the whole unit being standard onsite, including the licensee's hardware.

CHAIRMAN HENDRIE: I see. I see. Okay.

MR. GRIMES: But there have been various cost estimates.

COMMISSIONER AHEARNE: So I think what the Staff is recommending is what would have been called the stand-alone system, but the interface between the licensee's stand-alone and the data transmission being a unit to put into the standard --

CHAIRMAN HENDRIE: Onward.

(Slide.)

MR. GRIMES: The next slide gets to the subject of the meeting, which is a discussion of the alternative concepts, if one were to go forward with the NDL. Plan A is the concept where the NRC would staff up a program office and let contracts for specific hardware and system design.

Plan B would be using the Sandia Labs, who have done the studies of the program to date, to manage a good deal of the implementation of the program.

Plan C, which as a bottom line we are recommending, is that the NRC have a small program office consisting of a program manager and a couple of professionals, and hire through contractual process what we call a technical integrator, someone to actually provide us extra expertise in management skills, in managing th -- in putting out the bids and managing the contract during its execution.

COMMISSIONER GILINSKY: Which we would do under Plan A?

MR. GRIMES: Which we would entirely do under Plan A, yes.

(Slide.)

The next slide says the same thing, and there is a more detailed breakdown of this in the paper, but as a rough cut, you can see that in Plan C the technical integrator would be involved in managing -- assisting us to manage and evaluate

contractor work and helping with the licensee interface definitions.

COMMISSIONER AHEARNE: Could I ask you a question on that, Brian?

In your paper, when I read in the back in Enclosure 5, which is the RFP, you say:

"The systems integrator handles all programming contracting, including RFP preparation and propo evaluation, contract negotiation and award, and contract administration."

In the beginning of the paper, in the description of Plan C, you say:

"Implementation to be carried out via competitive bidding conducted by the NRC, with assistance and evaluation by the technical integrator."

Aren't there two different descriptions?

MR. GRIMES: Yes, that's correct.

COMMISSIONER AHEARNE: Which is accurate?

MR. GRIMES: The paper is accurate. Enclosure 5 was prepared for us by Sandia when the concept was to have them do the procurement as well. During the development of the paper we changed to other than a total systems integrator who would do the procurement to more of a technical evaluator assistance, and the NRC would take on the actual procurement function to

assure that the appropriate government procurement regulations were followed, and that our contracts people particularly felt more comfortable with the NRC having the heavier role in the actual procurement.

The enclosure just didn't get changed in the process.

(Slide.)

The next few slides are [illegible] the advantages and disadvantages to the various plans. The primary disadvantage I see to Plan A is that the NRC would have to develop a bigger program office, and also I think we can hire expertise -- rather, we can contract for expertise easier than we can hire individuals with the appropriate expertise. That, to me, is a major point between Plan A and Plan C.

Plan B would not open the bidding to the private sector as much and would give us less program control also.

COMMISSIONER AHEARNE: Under Plan B, you would then just extend the existing contract with Sandia?

MR. GRIMES: Yes.

COMMISSIONER AHEARNE: As I read this, they would then do the contracting? Is that right?

MR. GRIMES: Yes.

COMMISSIONER AHEARNE: Would you foresee their doing it noncompetitively, or would that be up to them?

MR. GRIMES: No, I would foresee that the hardware would likely be competitive. However, there may be some things

which Sandia itself could provide.

COMMISSIONER AHEARNE: So the less competitive bidding really refers to that portion done by Sandia?

MR. GRIMES: Sandia, yes.

(Slide.)

Plan C, which we are recommending, gives a number of advantages in that we believe that there are a number of organizations whose expertise we could take advantage of in this area, and that we'd have better assurance of state-of-the-art knowledge by going this route.

There will be some duplication of NRC tasks in terms of evaluation and management. For example, the systems integrator might require five or six people, professionals, and we might have a couple of professionals. Whereas if we did it ourselves, we might only have five or six professionals ourselves. So there might be some costs in addition to overhead costs to a contractor for some duplication with the balance being higher assurance of having state-of-the-art knowledge and expertise in the area.

COMMISSIONER AHEARNE: Could you just go over once again that last point that you made on the change of this type of systems integrator? You said one of the things was that previously the way the RFP was written, the systems integrator would be doing the subcontracting, and you were concerned about -- or Contracts was concerned about meeting the

federal procurement regulations.

But you also just said that Sandia, under Plan B, would be doing the contracting competitively. So I'm a little confused now as to why the systems integrator couldn't be doing that also.

MR. GRIMES: The systems integrator, I suppose, could be bound to use the same system of regulations as the NRC.

COMMISSIONER AHEARNE: No, I'm talking about at Sandia.

MR. GRIMES: Oh. Sandia, I think, is bound to use methods which are compatible with the government procurement regulations. There might be some greater expertise and experience in Sandia's contracting office than the NRC's, but I --

COMMISSIONER AHEARNE: Was the main reason, though, that you changed the RFP version to the paper version, because of Contracts' uneasiness with letting the systems integrator do the contract?

MR. GRIMES: That's one of the principal reasons. After I talked to them, I felt that NRC could indeed handle the job also, which I had not been sure before. And Mr. Holland assured that we are capable of doing that.

COMMISSIONER AHEARNE: Did you address whether a systems integrator who would be on the hook to get the system running would feel comfortable with having the NRC choose the people who were part of the responsibility of getting the system running?

MR. GRIMES: I'm not sure which concept we are talking about. The systems integrator or the technical --

COMMISSIONER AHEARNE: Well, the systems integrator or technical integrator approach I'm familiar with at the DOD systems, in all of the packages we ever did, the systems integrator wanted to have control of the subcontracts, because the attitude the systems integrator took was that they will be on the hook to get the system running, and therefore they would propose in their bid oftimes, these subcontractors explicitly, or at least the requirements certainly of the subcontractors. But they would be on the hook to get the system running, and would be very reluctant to let another office choose the subcontractor whose product they were then going to be required to make work.

MR. GRIMES: We had hoped to make it clear that they would have the major role in that selection, but that we

would do the actual procurement mechanics ourselves.

MR. STELLO: Sandia reminded us that that is also their experience, and one of the reasons they constructed the program the way they did was for the very reason you described.

(Slide.)

MR. GRIMES: The next slide is a very broad spectrum of possible costs which in my view may still be somewhat high, but we won't really know until we go out for bids, I believe.

The high estimate is from Sandia. The low estimate --

CHAIRMAN HENDRIE: Sam, were you waving a hand back there that I missed?

MR. BASSETT: It's probably moot, but we got to the point where an acceptable solution is for the systems integrator to participate in the evaluation of the bids and, more importantly, to manage the contracts after they are let. That's the arrangement that I understand we have, and under those conditions, the fact that NRC actually performs the procurement does minimum damage.

COMMISSIONER AHEARNE: I just reserve objection to that.

CHAIRMAN HENDRIE: It's a question of whether the minimum damage is still sufficiently high to cripple them.

Okay. Back to this slide.

MR. GRIMES: Thank you, Sam.

COMMISSIONER AHEARNE: You say NRC costs and industry costs. I did not -- maybe I have forgotten, but I didn't remember the Commission reaching a final decision as to how the costs would end up being allocated.

MR. GRIMES: These are the costs, the concept --

MR. STELLO: It's the overall cost. Take NRC out. If someone wants to pass those on -- but it's the overall cost. We have been putting this into the budget as though the NRC was in fact going to fund it and thus far it has been described as an NRC program.

MR. GRIMES: The operating and maintenance costs may also be somewhat high, but about half of that is for personnel costs to keep a staff 24 hours a day which serve dual functions as communicators in the Operations Center and people who could keep the machinery running.

COMMISSIONER AHEARNE: How large a staff?

MR. GRIMES: We're thinking of one shift and a shift complement which would be five or six individuals.

COMMISSIONER AHEARNE: You're talking about 24 people?

MR. GRIMES: No, about six total, which would be one per shift.

COMMISSIONER GILINSKY: Which person would man the --

MR. GRIMES: It would be the communicator and responsible for whatever minor things are needed to keep the

system on line.

In addition, of course, there would be some overhead in the instant response area for keeping things up to date, and there would be some yearly costs for updating or fixing software.

COMMISSIONER GILINSKY: Would there be any activity aside from emergencies? In other words, would the center be continually monitoring the various reactors? What would the man do if he saw something strange?

MR. GRIMES: Well, the individual would not be --

COMMISSIONER GILINSKY: Or woman.

MR. GRIMES: -- continuously monitoring all the reactors. One could call up a particular reactor --

COMMISSIONER GILINSKY: No, I understand he wouldn't be watching all of them simultaneously, but would he be, during his shift, looking at the various --

MR. GRIMES: We haven't really determined --

MR. STELLO: In a monitoring mode? Just monitoring while it's operating? The answer is that we do not intend to do that.

COMMISSIONER GILINSKY: So he would be just waiting for a call?

MR. STELLO: Right. If there is an incident is when he would go in. We would not intend to monitor as a routine matter. This is a subject that did come up once before,

as I recall, OMB asked us to look at that. It's possible to monitor, but with the system we have physically, I believe you --

COMMISSIONER GILINSKY: I'll tell you why I'm raising it, because I was thinking of it not as an advantage, but as a possible disadvantage, and if we're looking over the shoulder of the operator on a day-to-day basis, and if you look upon that as your responsibility, whether one or another of these parameters looks odd, you can call us and say --

MR. STELLO: Right. That's one of the reasons that --

COMMISSIONER GILINSKY: And then I think we'd slip into a, I think, relationship that wouldn't be a helpful one.

MR. STELLO: I can understand that. That's the reason not to get into a mode where you would try to monitor. I think it would be -- I think, quite frankly, on some kind of random basis, the plant would be extremely difficult to do. With 70 plants, you would need a lot of people.

COMMISSIONER GILINSKY: Well, if you actually intended to monitor the plants. But it seems to me an unavoidable tendency to look from channel to channel.

COMMISSIONER AHEARNE: That's why we keep certain people away from the control room.

COMMISSIONER GILINSKY: Let me ask you, what would it cost to hook up two plants?

MR. STELLO: We're going to cover that.

MR. DIRCKS: Do you mean during --

COMMISSIONER GILINSKY: No, the $12-21 million, I assume, is --

MR. GRIMES: Is everything.

COMMISSIONER GILINSKY: Are you going to tell us what that is?

MR. GRIMES: Yes, we'll get into that in the next slide.

(Slide.)

There are two phases. One, what we call the prototype installation, and testing would be simply bringing data from a plant into the Operations Center and displaying it, without extensive processing or recording capabilities or the major computer facilities.

That would be fairly inexpensive, probably less than $500,000, to just bring in data from two plants that had that data available. And I expect within the year there will be plants with data streams available.

MR. STELLO: You ought to mention that there are vendors now who have put together systems that have the capability to do some monitoring and display. They are already developed and they are marketing them.

MR. GRIMES: In fact, we saw a van in Bethesda last week from one vendor with a safety parameter display system, and two CRTs transmitting at the present time about

50 parameters which they had hooked up to their simulator through telephone lines and that is the sort of initial prototype installation that we would have in mind, and then use that to display in various fashions.

COMMISSIONER AHEARNE: Now, I guess this is a different view of prototype than I thought you were doing, but here you would take these two existing -- it's not a prototype of what you would necessarily work towards. You would do something immediately and so it would be more to get a familiarity with what could you or would you do with the data.

MR. GRIMES: Yes, and then use that to design the final system which then would be the lead plant installation.

COMMISSIONER AHEARNE: Well, now, that system design -- I'm a little confused. It looks like here your system design is about three months long, because lead plant installation systems seem to start on three months after the system design starts.

MR. GRIMES: I think we will have a good enough idea early on as to what we want to start doing -- working on both ends of the --

COMMISSIONER AHEARNE: This design has to be moved back or else the lead plant has to move out, but otherwise your lead plant installation can't be based upon a systems design.

MR. GRIMES: You may be correct. I'm not conversant

with that particular point.

COMMISSIONER AHEARNE: On this chart, the monies that we have put in the budget were for two plants; is that correct?

MR. STELLO: It's adequate for that purpose, and more.

COMMISSIONER AHEARNE: Well, but I think there were some explicit statements that --

MR. STELLO: You mean in OMB?

COMMISSIONER AHEARNE: Yes.

MR. DIRCKS: A small test prototype data link.

COMMISSIONER AHEARNE: Okay, now, is that prototype installation and testing, is that --

MR. GRIMES: I guess I would have to look at the specific language. I would think that that would be the lead plant involving the main -- the computer system, or at least part of the computer system.

COMMISSIONER AHEARNE: If you tried to put on this chart, how many, at which stage would there be, how many numbers of plants? Where would that fall?

MR. GRIMES: I would think the first two plants would be in the lead plant installation and testing, at least two plants in that. There would be data stream from at least two plants in the prototype installation testing first.

Then there would be a complete, rather complete Operations Center set up for two plants by the end of year two.

Whether they are the same as the prototypes or different, I can't say. And then on a fairly linear -- I guess I would say by the end of the -- during this time we are getting hooked up to individual units. We are not prepared to totally process and prioritize the information in the Operations Center until we've got the software complete.

CHAIRMAN HENDRIE: Brian, you've got a hand waving behind you.

MR. GRIMES: Sam?

MR. BASSETT: I think perhaps I can clarify this. This chart, too, suffers from a certain degree of age. It contemplates the engagement of a systems integrator who is thoroughly familiar with the system and can proceed right ahead and install lead plants by what you'd term arm-waving, using laboratory prototypes and the best state of the art.

It contemplates the installation of lead plant equipment in advance of a comprehensive cast-in-concrete system design from which you would procure the vast quantity of software and terminal units for all the rest of the reactors. In contemplating integrated ongoing action, it's not perhaps the best chart in the world for a two-plant prototype followed by pause installation.

CHAIRMAN HENDRIE: In fact, is it practical to do the prototype on the basis of hand-waving?

MR. BASSETT: Indeed it is, if you get a systems

integrator who is experienced with these systems. It is not a high level state of the art problem we are facing here. And indeed prototype installation could go ahead rapidly. The confusing thing here is the block of systems design which contemplates a long term design of the system of high reliability, great life cycle considerations and so on.

MR. STELLO: As I pointed out, vendors already have units they are prepared to sell for the EOFs, and the only difference between EOFs and Op Centers is transmission. But again, you know, that would mean you are looking at just unit to unit, we'd have one to one. We wouldn't have a system capable of handling all of the plants and doing the things we talked about.

But on that basis, you already have something that vendors are out marketing right now.

MR. GRIMES: I guess I also at this point would like to interject that I failed to note before that Sam Bassett has been the lead individual along the Sandia contract over the last year and a half or so.

COMMISSIONER GILINSKY: Well, is this chart something we ought to be addressing, or is it obsolete?

MR. GRIMES. I think it gives you a general idea of the things which must be done and a general time scale over which they must be performed, but I think we won't know the detailed sequence until we have a technical integrator onboard

and he helps us develop the formal program for the installation.

MR. DIRCKS: I think we ought to note the prototype restrictions contained in the OMB guidance. We should go through the prototype exercise.

MR. STELLO: Well, it's intended that we would.

Well, Commissioner Gilinsky, to answer your question, starting with the arrow that says technical integrator selected, assuming reasonably competent wholly up-to-speed integrator at that point, I think the chart is reasonable.

COMMISSIONER GILINSKY: Well, let me ask you then, when you say lead plant installation and testing, those are the first two or the first several or --

MR. STELLO: It would be hoped that the plants that we would select for the prototype would be plants that would be ready to go into the lead plant testing. Hopefully they would be the same ones.

CHAIRMAN HENDRIE: What's the difference between the line that says prototype installation and testing, and the line that says lead plant installation and testing?

MR. GRIMES: I had indicated briefly that the prototype installation and testing will simply be bringing available data into the center without trying to process it in any extensive form with a computer installation, bring it in over telephone lines to CRT displays in the format that would be sent from the --- in the plant format.

We could either use --- well, it's likely we would just use a receiver compatible with that specific plant, so we'd just use the data acquisition system for that facility and assure that our --

CHAIRMAN HENDRIE: The prototype then would look like a simple version of what's in that plant's EOF?

MR. GRIMES: Yes. It would not have the NDL terminal on site. It would have something at this end which would be compatible with the specific plant.

MR. STELLO: And it wouldn't be hooked up. But I think probably the biggest differences, the system that will be in the Operations Center, the computer and the CRTs and the way in which you trend and use the data at the NDL, that would not be there.

COMMISSIONER GILINSKY: Now what is it that you won't be able to do? You say trend the data?

MR. GRIMES: Well, I guess the easiest way is to think of if you want to do a prototype on every plant, what you would have to do is have up to 50 different sets of receiving equipment, each one specifically compatible with the particular plant system.

What we are trying to do in the overall lead plant is install our NDL terminals onsite, if those are needed, and put that into some at least minimal processing at our end, so that we could activate on certain signals from the plant.

COMMISSIONER GILINSKY: What sort of processing are you talking about?

MR. GRIMES: Many computers which would allow us to call up specific plants, for example. One of the problems in the software will be diverting from one plant to another.

COMMISSIONER GILINSKY: I see. But in terms of testing out the concept of how we would interact with the plant and whether we are happy or not happy with so many data elements, it seems to me that would be entirely adequate.

MR. GRIMES: The prototype indeed would give us some specific examples of what we could do, and based on that we could develop a design of what we wanted for all the plants.

COMMISSIONER GILINSKY: You just simply couldn't run the whole system on that basis.

MR. GRIMES: That's right. And you would have different, very likely different information available and trending capability, if any, available on each of your prototypes.

COMMISSIONER GILINSKY: And when you said $500,000, were you talking about those two prototypes?

MR. GRIMES: Yes.

COMMISSIONER AHEARNE: Given the way you have described it, I don't see why you don't have a dashed line down between your 1 and 2, because your description leads to the conclusion that you would want to take some time then, on

the systems integrated, take some time to think about what has been learned through that prototyping and to immediately jump in.

MR. GRIMES: Well, the prototype installation testing extends over about a year, and I would say the latter part of that year is making the final decisions, and getting ready to embark on the final design.

MR. STELLO: I'm not sure I see the problem. The amount of data that you are reflecting I think is pretty well the number of data points, and there is some flexibility built into it, but the software development, which is how you manipulate and use the data, which is where the learning process is, you notice starts about the middle of that second year and moves all the way out to the middle of year four, and to the extent that that becomes important in the understanding of what you're going to do, it's clearly going to be in the software end of the business, in how you handle and treat and use the information.

It's hard for me to understand why you'd have very significant differences in the computer itself.

CHAIRMAN HENDRIE: I'll tell you, it's not clear to me that after you -- it's certainly true that we've got to do better than the phone business. You know, every five or 10 minutes, why, a new value for the system pressure comes through, and the guy writes it on the chalkboard and it then

appears on a TV tube in several places around the Op Center.

Once you go past that, and you've got a system which is capable on an every couple of minute update basis of automatically giving you either printout or show on a CRT the 70 or 100 parameters that you are interested in, boy, have you made a big step forward in terms of the knowledge level of the Operations Center.

Now, from there, to the steps of being able to take that data automatically renewed every minute or so and do all kinds of great manipulations with it, that is throw up the last hour's containment pressures, press a button and it gives you a plot of containment pressure vs. time. So, you know, that's all great, but it's not so clear to me that the return in improvement of NRC emergency capabilities is rising at the same rapid rate as the cost of it in that phase. That first stage of getting the improved data into headquaters, the rate of NRC capability to respond is rising very rapidly. You know, lots of capability per dollar.

I've got a notion that once you get that stuff in house where people can write it and make a graph and so on, the difference between fact and being able to punch a button and have the computer system go bing, bang, whoopee, and put it up on the screen at the rate of improvement capability per dollar spent is not nearly so high in the question. That is, how far down the line do you have to go. And I guess that

continues to be a problem.

MR. GRIMES: We didn't put on the chart a graph for Commission meetings towards the end of the prototype development, but I expect that they would be there.

CHAIRMAN HENDRIE: If you get around to that graph, why, allow some space on it for hearings, because the -- I think there's a very good possiblity that the amendment to the Interior subcommittee will hold up, and that the expenditure of the prototype and so on, for equipment, either leasing or purchase, will have to be justified by further discussions with the committees, and some agreement from them one way or another with the going ahead with the prototype as proposed, or as modified is the appropriate thing to do.

MR. DIRCKS: You're talking about going back and looking at the alternative of line printer type of ---

CHAIRMAN HENDRIE: Well, that's a possible version. As I understand what's being talked about here, however, for the prototype -- one and two-plant prototype hook-up, you would go and try to find some plant operator who is making good progress in this line, so that he's just about got his data acquisition system set up and he's buying and installing his display systems for emergency offsite facility, for instance.

And then what we do is say, tell you what, why don't we buy or lease some subset of what you're putting in your EOF, the CRTs and whatever receivers you need, and we'll put those

in headquarters in the Op Center and hook up our link to the plant, and what that does is then give us an opportunity to run some drills, and see what it's like to have this capability.

Now whether it's CRTs or printout, I guess the thing you would be looking to do is to make a --- to do a thing which has a sort of maximum compatibility with what the guy is already doing.

So that, for instance, there is not a lot of additional software that has to be prepared in order to make the transmission. Do I read that right?

MR. GRIMES: Yes. And in addition, there is at least one system that's also compatible with the simulator, so that one could actually run a simulator --

MR. STELLO: Which is the more desirable thing to do, especially for exercises.

CHAIRMAN HENDRIE: Would you actually try to hang off somebody's honest-to-God that acquisition system, or would you try to buy a set of gear, both his end and mine, and run it off the simulator, which is another way that you could do it?

MR. GRIMES: I think we'd try to do both. We'd -- for example, the vendor that was in last week showed us his system as being hooked into his simulator.

CHAIRMAN HENDRIE: I see.

MR. GRIMES: But that same system will be hooked

into some other plants. And when they are hooked into the other plants within a year, certainly, perhaps next fall, then we would like to hook into a plant just to be able to establish we can hook into a plant. But as far as exercising goes, I think I'd much prefer to be hooked into a simulator.

CHAIRMAN HENDRIE: That would certainly give you a lot more opportunity for drills and exercises and so on.

Now, the sort of thing that sends you up for the prototype stage with -- in the Op Center, is some sort of display system which corresponds approximately to the semi-automatic mode that you have discussed in one of the reports to the Congress. That is, as I understand it, in order to look at trends and whatever, why, people will take data off the system, read it off the screen or a printout and go and ponder upon it as they will. Make plots or further calculations or whatever.

MR. GRIMES: It depends on the prototype and design. This particular one also had some limited plotting capabilities.

CHAIRMAN HENDRIE: I see.

MR. GRIMES: For trends you could select a few parameters to plot.

CHAIRMAN HENDRIE: But for the most part it would be a matter of people taking the data off and doing further analysis?

MR. STELLO: I should at least note that the Staff has full confidence that the Commission will get whatever resources are needed to do this.

COMMISSIONER AHEARNE: The only question that remains is what is actually needed.

MR. STELLO: True.

COMMISSIONER AHEARNE: That seems to be the Congressional question.

MR. STELLO: Well, that's, I guess, going to be an issue until we have gone out and actually put it out to bid, without an integrator onboard.

MR. DIRCKS: You're talking -- in this fiscal year, what are you talking about in terms of --

MR. STELLO: We have this fiscal year enough to get it going.

COMMISSIONER GILINSKY: Now do we need an integrator for this prototype installation?

MR. GRIMES: It would be preferable to have him or be getting him onboard while we did this, so he could assist us in evaluating the prototypes. We could go ahead and start getting the couple of types contracted for and getting a technical integrator onboard. But for the evaluation of them, we would certainly want the integrator onboard.

COMMISSIONER AHEARNE: So that he could get the advantage of the --

MR. GRIMES: Yes. And we could get the advantage of him, also.

CHAIRMAN HENDRIE: Now, let's see. How much have we got in the budget on this subject overall for '82?

MR. GRIMES: For '82?

MR. BARRY: 5 million, '82.

CHAIRMAN HENDRIE: 5 what?

MR. BARRY: $5 million in '82.

CHAIRMAN HENDRIE: And what in '83?

MR. BARRY: 6.

CHAIRMAN HENDRIE: And how much would go into the prototype?

MR. GRIMES: The installation of the prototype itself is only going to run around half a million. It will probably be '81 money. We have existing money that we can use, but getting the technical integrator can also be done out of '81.

CHAIRMAN HENDRIE: Okay. Now let's start again. If the gods are kind and Congress smiles, and assorted other things happen, you know, there is no nuclear war, the Republic survives, et cetera, come October 1st, we will have $5 million in this presumably to be used for nuclear data link activities in fiscal '82.

I state that as a premise. All who disagree or want to differ, please raise their hands.

No hands. Good. That's the premise.

Now how much of the 5 is required for the prototype implementation in '82? Has anybody got a guess?

MR. GRIMES: The total on prototype is probably less than half a million for '2.

MR. STELLO: And we would use '81 money to get that.

CHAIRMAN HENDRIE: How much of the '82 money would you use for it?

MR. DIRCKS: Whatever is needed for maintenance, I suppose.

CHAIRMAN HENDRIE: There probably would be some fraction of the overall Staff effort or contractor effort in NDL which could be described in the prototype, but that, you think, would not be a large chunk of money, $200,000, maybe for the year?

MR. GRIMES: The larger amounts of funds -- or if the technical integrator is onboard and trying to design or manage a system design --

CHAIRMAN HENDRIE: In fact, it's questionable how much of that actually can be reasonably expected to get done in '82. So we in fact expect that most of the '82 $5 million would move forward and actually be committed probably later in the fiscal year.

COMMISSIONER AHEARNE: If you went for their proposed option, there is going to be in any month --

CHAIRMAN HENDRIE: You know, the whole thing won't coalesce until we go into the project for many moons.

Other comments?

COMMISSIONER GILINSKY: I would like to see the thing tried out in the two reactors in a simple form.

CHAIRMAN HENDRIE: Or a reactor and a simulator or something like that. Having a hook-up back to a simulator would actually be very handy, because then we could commission a series of drills in which the simulator would run an incident and work the whole system.

It's probably practical to arrange with the same degree of exercise of the system of the plant.

MR. HANRAHAN: Instead of doing it in Bethesda, why don't you try to hook it to the same simulator?

CHAIRMAN HENDRIE: Well, that's a possibility, but I guess what that means is we end up buying a chunk of equipment which probes the innards of the simulator's computer and gathers together the parameters of interest and then transmits them.

I thought there was some hope that if you found -- you know, if you're dealing with a vendor who supplies this kind of equipment and he is also in the simulator business and has a simulator, he might consider it a great encouragement for his gear to let us hook into his simulator and use his, you know, simulated onsite transmission equipment without

enormous cost; whereas if we go to Chattanooga and hit it up on TVA's simulator, why, it's going to be pretty much -- we're going to have to lease and maybe buy all of the plant and I think that could run the cost up.

It still may be worth doing in terms of greater degree of control you've got over it, and the fact that you are then compatible obviously with TVA's training needs for the simulator and could run a batch of drills. I can see what that means, we'll be running those drills on the midnight to 8:00 shift, Vic.

MR. STELLO: That's one of the times we have the computer.

CHAIRMAN HENDRIE: We can always assign emergency commissioners. I'll take the day shift.

(Laughter.)

MR. GRIMES: Would you settle for Saturday? I think we could possibly arrange Saturday.

CHAIRMAN HENDRIE: Well, you would have better control. That's what I'm thinking about. And then if you can also have, as part of the prototype plant, a look-up to an honest-to-God operating plant, why, it might be interesting to see what problems turn up there. But your ability to exercise it, you know, through transients is not very good.

COMMISSIONER GILINSKY: I would then regroup after that experience.

CHAIRMAN HENDRIE: Yeah, you know, you get the gear in place and you run some drills, various kinds, to try to exercise aspects of the proposition and then I would think instead of proceeding blindly down that chart to 80 sites or however many are involved, why, I would think you would regroup.

MR. STELLO: That's the understanding we would have with the technical integrator, and we would move forward to get one.

CHAIRMAN HENDRIE: You would move forward to get one.

MR. STELLO: You might be talking a year before you do get one. We're only going out for an expression of interest. Then after that you've got to go through a bid process. So you do understand if we don't decide to move forward, you know, that's just that much longer before we would ever get into it, if we ever do.

CHAIRMAN HENDRIE: I don't regard Vic's opinion to regroup and my joining it after the prototype experiences say one should not go ahead putting in place the procurement and technical capability to go ahead.

You can always, you know, send out notes of regret saying, well, sorry, we have decided to stop it all, but starting it is --- well, John says a year, and I find it hard to --

MR. STELLO: That's not an unreasonable effort. Then you have to get the bits back and evaluate them and select them. That's not the speediest process in the government.

CHAIRMAN HENDRIE: No, it isn't.

Yes, John?

COMMISSIONER AHEARNE: I have a couple of points I want to make before you close.

CHAIRMAN HENDRIE: Let me give you time to make those points. Let me say as a parenthetical remark about the procurement system of the United States of America, if it had been operative in the years of my youth, from like '39 to '46, we'd have lost the damn war.

John.

COMMISSIONER AHEARNE: I am not going to refer to that comment.

In trying to address this particular issue, I have tried to go back and just summarize what I saw to be some of the problems we are trying to address with this, and they are all obviously very obvious. But as far as I can see, there are two problems we are trying to solve:

One is what type of contact and between whom should the NRC have contact during an accident with; and the second was, how can the NRC know what is happening during an accident.

Now a lot of the debate, both here and in the

Congress, confuses me, because it really seems to underlie -- there seems to be an underlying indication that we really shouldn't have contact. But if we assume that the NRC headquarters should be able to keep Commissioners, the Congress, the White House, abreast of an accident and be able to advise governors or other local officials whether protective action should be taken, then we do need good information on at least some parameters.

And in spite of the debates, I don't see anyone who is willing to say we have decided that we don't need to keep these groups informed.

In fact, some of those who are most critical at the moment of why are we going down this path seem to have been the ones that in times past were most anxious to know what was happening.

So I conclude that in the presence of another accident, they will once again want to know what is happening. And I believe that we have seen many times already, either in drills or actual events, that governors and local officials do want our advice on what kind of actions might be taken. So I think we do need good information.

Now we can get it from people onsite. One option would be to have a permanent resident inspector. That means 24 hours a day. Or you can say the resident inspection office

has to be within a certain number of minutes, and then lower the trigger point, at which time they are called to the site, to make sure that if an event were beginning to unfold, he would be at the site.

We could count on the phone link and use licensed personnel until a resident inspector arrives. Or we can have some automatic data. We are where we are now because many of us have concluded that we do need the information, and that the other alternatives, the full 24-hour coverage or using the phone lines, that either of those are inadequate.

So we reach the automatic data.

Now at the moment we have a lack of acceptance of the concept. We have this Nuclear Safety Oversight Committee, Babbitt and company, who have criticized this approach. We have Mr. Udall and his committee criticizing the approach. The OMB doubts the approach. Commissioner Gilinsky doubts the approach.

We have these two groups, Research Triangle Institute and NASA, who have questioned do we really have clearly in mind what our requirements are.

Perhaps if we had a clear definition of the requirements, maybe some of the doubts would disappear, but I sort of doubt it.

And my conclusion is that we have to go ahead. I think you have got to get a systems integrator and in the time

when you go out with your notice, you are going to have to be working on trying to refine the requirements, because at the present time I notice your answer to NASA's criticism was, well, in the meantime there have been a lot of drills and other papers.

I think the NASA criticism was focused on there is no single document you can pick up and say here are the technical requirements for this, and from NASA's experience I think what you are seeing is that their history would say in the absence of that, you are opening the potential for very significant costs, in schedule slips, and in the long run, a system which isn't going to satisfy you.

I think those of us who believe this ought to be done have a hard time to convince the critics, the people who are doubtful, that it could be put in place without some of the problems which they see; namely that the NRC really is going to be looking so close at every licensee that they are going to start --- if not in fact at least lately, transfer responsibility to the NRC, and that seems to be the underlying concern, that the licensee will have a reason to step away from the responsibility which we are saying is theirs.

My own vote is I don't think that the approach you are taking to the systems integrator is going to work. I think that -- my guess is that the best system is the one that you had originally proposed.

CHAIRMAN HENDRIE: What is that? Just put the job to a contractor and say, contract?

COMMISSIONER AHEARNE: That's right.

MR. GRIMES: You mean the systems integrator Enclosure 5 concept, where they handle that procurement?

COMMISSIONER AHEARNE: Right.

MR. STELLO: That doesn't give me any problem.

COMMISSIONER AHEARNE: Certainly -- but coming out of that experience, the approach that you now have tends to fail, whereas the other is higher, particularly when we just don't have that level of expert knowledge.

MR. STELLO: Let me be fair. I don't have any problem in doing it. I haven't heard the arguments as to what contracts fill the need, but --

MR. SCHLOSSER: As a representative of the Division of Contracts, I can certainly express those.

My name is Lawrence Schlosser. I represent the Division of Contracts.

The problem that we see with the approach here is that what the program officer is referring to as a technical integrator fuses in effect three types of duties in one entity:

There are elements of program management which can border very close to contracting out government functions.

There are elements of technical assistance which

fall into the consultant category, possibly placing this technical integrator in conflict of interest position, that is developing the specs here, and in a position to influence contracting over here.

There are elements of a performing contractor.

Now my understanding, after talking with Mr. Weiss, was that Concept C related to a scaled-down person whose in-house skills would be supplemented, if you will, from time to time by technical assistance. That what they really had in mind was not a fusing of these three elements with all the attendant problems and potential conflicts of interest, but rather having a smaller project office, one that would be augmented, for example, in the RFP preparations stage, the proposal evaluation stage, the systems test analysis stage, et cetera.

Now what I think Commissioner Ahearne is talking about when he talks about a systems integrator or technical integrator is a prime contractor.

Take, for example, for the B-1 bomber, who has ultimately the legal responsibility for putting together a system that works? That contractor doesn't have to perform the entire contract itself, but they subcontract the avionics, may subcontract the engines or the airframe.

The danger that I see here is that these three elements are being inadvertently fused into one entity. I

don't have any problem with that approach. That is a prime contractor. He then subcontracts major elements of the system. There is no problem with that. Division of Contracts does not have a problem with that.

We have a problem with the contractor who is a systems integrator, a consultant, and also project manager.

COMMISSIONER AHEARNE: But realizing that the distinction you are making turns out to be one more set of terminologies, let me take -- you use the B-1. Let me use AWACS, in which the company was hired in the contract as systems integrator.

Now they were the prime contractor. Somebody else built the radar and somebody else built the communications equipment and display consoles. They provided the airframe. But the purpose they were hired for was to manage the manage the program, to put it all together, to provide technical assistance, when necessary, to make sure all the pieces meshed together, as well as actually provide some of the hardware.

MR. SCHLOSSER: I think there is a difference. Every prime contractor obviously has to manage his program. What we are talking about is a potential that system acceptance, that is the event that triggers the payment of tax dollars, is actually performed by other than an NRC personnel.

I think it is a bit dangerous to -- more than a bit

dangerous -- to have ourselves in a position of dependency where we don't have enough expertise to oversee this contractor.

That's one reason why the Division of Contracts is able to agree to a situation where a scaled-down project office has in-house skills that are supplemented at appropriate times by another contractor.

COMMISSIONER AHEARNE: My concern is that supplement is not going to lead to a successful solution of the effort. I guess you are worried about one side and I am worried about another side, and I am not sure they both can be meshed.

I would urge you to try to see whether we cannot meet the legal requirements, but let someone have overall responsibility. Because my concern would be do we end up with a useful system. Not that we are sure that even if it is useful, we have met all the requirements in the easiest way.

(Laughter.)

MR. SCHLOSSER: There is no problem having a prime contractor responsible for the total system, but to have that contractor onboard, in effect, as is proposed before you even begin, getting into the innards of the system design, I think is inappropriate from a conflict of interest standpoint. I think we have problems there meeting our own conflict of interest standards, because this person is onboard helping us with the development of specifications and is in a very central

position.

COMMISSIONER AHEARNE: What you are saying is the system at this stage, as you see it, is sufficiently poorly designed so that you could not be going out with a systems design contract, with a total system contract?

MR. SCHLOSSER: I haven't taken a look at the specifications yet, but there certainly are a number of appropriate steps we can take. It would seem to me that after having spent the amount of money that we have spent that the documents would be suitable for release to industry for draft comment.

In the meantime, we could be looking for technical assistance. That is someone who would be in a position to assist us and react to these comments, would be in a position to assess their significance on the system design without having committed ourselves to a long-term relationship which may be inappropriate.

We could, for example, instead of going through the sources sought and then an order for technical assistance, we can compress those. There is no need to go through sources sought. From my experience in this area, it seems there are a number of firms competent to provide technical assistance.

So I don't think we have to go with the sources sought. I think we can go immediately with our statement of requirements for technical assistance and secure that

assistance. But this person should not also be in a position to contract. I think that's too much of a conflict of interest.

MR. BASSETT: I'd like to rise to one point of the systems integrator scheme. We have considered that he be excluded from furnishing hardware as a basic requirement. This, I think, answers one of your objections.

Another part of it is that the sources sought overture allows us to consider the use of not-for-profit and other government entities who in many ways would constitute the most objective systems integrator capability because of, again, the removal of the temptation to get into hardware.

COMMISSIONER AHEARNE: If there was that exclusion on hardware, would it overcome --

MR. SCHLOSSER: I think specs can be restricted in many ways besides hardware specifications, so I don't see that as being fully responsive.

COMMISSIONER AHEARNE: But if the concern is the conflict of interest and if they are excluded from providing the hardware ---

MR. SCHLOSSER: We are also involved with software bids. We would also propose to exclude the software. In other words, we would remove the element of self-interest.

(Laughter.)

MR. HANRAHAN: I think it turns on having a lack of

specifications. What you need is somebody incapable of doing that, to have a contract that can provide -- help us create the functional specifications which they would then not be permitted to bid on. They would have done their job.

MR. SCHLOSSER: We would have spent a good deal of money procuring that kind of specification.

MR. HANRAHAN: The review seemed to indicate that there were no specifications available to do the job.

MR. SCHLOSSER: That would cast doubt on Sandia's expertise in this area.

MR. BASSETT: I would like to submit that we are in the basic fundamental confusion we started with; to wit, there is a system which is relatively straightforward mechanical consideration, and there is a functional requirement which will have to be resolved with experience, and which the prototype program will be helpful with, I think.

The documentation that's been developed thus far has been based on our best guess of the function requirement and a fairly good knowledge of what the system requirements are. We can procure that system tomorrow by routine, straightforward procurement.

I sense that it is the uncertainty on the part of the public and the Commission as to the actual function requirement that keeps us from doing that. Under those circumstances, I think the proposed course of action would

be to get an integrator who can help us in these definitions, help us evaluate the prototype installation, take them out of the hardware and dedicated software business, and let them go ahead and help us implement the program. And that's, I think, the proposition.

MR. SCHLOSSER: The form you are describing is the technical integrator then would be a consultant at the front end of the process, primarily. Is that --

MR. BASSETT: Correct.

MR. SCHLOSSER: Okay. This technical integrator then would not have the ability to actually conduct the procurement itself?

MR. BASSETT: In the present scheme, the actual procurement would be conducted by NRC.

MR. SCHLOSSER: Well, it seems to me that was what I initially started with, which was the scaled-down technical --

COMMISSIONER AHEARNE: They said they have proposed the contracts, and I was just saying I think that's wrong.

MR. SCHLOSSER: Okay. Well, I was just attempting to --

COMMISSIONER AHEARNE: Yes, I understand.

CHAIRMAN HENDRIE: Other comments?

COMMISSIONER GILINSKY: One question:

Have you discussed this with the utilities? What

is their reaction to it?

MR. GRIMES: We got some feedback on the comments on 0696, and I would say there is not a great constituency for providing the NRC with more information. I think the basic concepts of 0696 are generally accepted as a useful thing to do to get the data in to the licensees' facilities, and I would say industry reaction mostly is neutral, but there are some people who would oppose from the philosophy of getting the NRC too deeply into the process. The problems we discussed earlier would oppose the concept.

MR. STELLO: I guess maybe I would add the conversations I have had with people from utilities did not leave me with the belief that they thought this was a bad idea, although a lot of written comments reflect it. Some of the people I have chatted with in casual conversation lead to a different conclusion. I suspect if I asked the industry, reaction would run against moving forward with it.

I don't know if that's a reason to do it or not do it, however.

COMMISSIONER GILINSKY: No, I was just curious. John rattled off a list of persons who were uncertain about it.

CHAIRMAN HENDRIE: Well, I guess if no one has other comments to add or questions to ask, I'll adjourn the meeting, and ask the Commissioners to contemplate the proposition before them, and we shall see whether we gather a

Commission consensus.

Thank you very much.

(Whereupon, at 11:40 a.m., the meeting was adjourned.)

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NUCLEAR REGULATORY COMMISSION

This is to certify that the attached proceedings before the

NRC Commission

in the matter of:

Date of Proceeding: March 26, 1981

Docket Number:

Place of Proceeding: Washington, D.C.

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

ANN RILEY

Official Reporter (Typed)

Official Reporter (Signature)